



Missouri Department of Natural Resources
Air Pollution Control Program

PERMIT TO OPERATE

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to operate the air contaminant source(s) described below, in accordance with the laws, rules, and conditions set forth here in.

Operating Permit Number:

Expiration Date:

Installation ID Number: 173-0001

Project Number: 390-0000-1025

Installation Name and Address

Continental Cement Company, Inc.
10107 Highway 79
Hannibal, MO 63401
Ralls County

Parent Company's Name and Address

Continental Cement Company, Inc.
10107 Highway 79
Hannibal, MO 63401

Installation Description:

Continental Cement Company operates a long wet process cement kiln to manufacture portland cement near the city of Hannibal in Ralls county. The installation is located in an attainment area. The installation is an existing major source of particulate matter less than ten (10) microns, sulfur oxides and nitrogen oxides.

Effective Date

Director or Designee
Department of Natural Resources

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I. Installation Description and Equipment Listing

INSTALLATION DESCRIPTION

Continental Cement Company operates a long wet process cement kiln to manufacture portland cement near the city of Hannibal in Ralls county. The installation is located in an attainment area. The installation is an existing major source of particulate matter less than ten (10) microns (PM₁₀), sulfur oxides (SO_x) and nitrogen oxides (NO_x).

The installation contains quarry operations, raw material handling and storage, kiln pyro-processing, cement kiln dust and coal/gypsum handling, clinker cooling, finish mill systems and cement storage and loadout. The installation is subject to the Portland Cement Manufacturing MACT and the Hazardous Waste Combustor MACT.

Reported Air Pollutant Emissions, tons per year							
Year	Particulate Matter ≤ Ten Microns (PM-10)	Sulfur Oxides (SO _x)	Nitrogen Oxides (NO _x)	Volatile Organic Compounds (VOC)	Carbon Monoxide (CO)	Lead (Pb)	Hazardous Air Pollutants (HAPs)
1996	322.60	1034.30	1809.20	35.00	63.40	0.10	-
1997	358.13	814.61	1370.06	39.05	61.53	-	-
1998	329.05	1339.00	1486.24	6.94	60.93	-	-
1999	245.45	1079.06	1953.20	6.60	42.72	0.25	-
2000	186.41	606.52	1922.01	6.63	78.60	0.25	0.21
2001	207.54	546.12	2056.97	6.66	81.48	1.08	-

EMISSION UNITS WITH LIMITATIONS

The following list provides a description of the equipment at this installation which emit air pollutants and which are identified as having unit-specific emission limitations.

Emission Unit	Continental's Flowchart Reference No.	2000 EIQ Point	Description	Control Device	Manufacture	Year
EU0010	CEU0070	KP-1	cement kiln	ESP	Amer. Air	1966
EU0020	CEU0080	CM-1	clinker cooler	KDC - 5	Amerex	1966
EU0030	CEU0090	CM-1a	dust collector discharges to apron pan conveyor	KDC - 5	Amerex	1966
EU0040	CEU0100	CM-2	clinker transfer drag to apron pan conveyor	KAP - 1	Fuller	1966
EU0050	CEU0110	CM-2a	dust collector discharges to apron pan conveyor	SC-3	Fuller	1966
EU0060	CEU0120	CM-3	clinker apron pan conveyor transfer point to bucket elevator	KAP - 2	Fuller	1966
EU0070	CEU0130	CM-4a	clinker transfer - east elevator to belt conveyor	KDC-1B	DCE Vokes	1966
EU0080	CEU0140	CM-4	clinker transfer - west elevator to belt conveyor	KDC-1A	DCE Vokes BHA	1966
EU0090	CEU0150	CM-4b	clinker transfer - east belt conveyor to north tripper belt	KDC-1D	DCE Vokes BHA	1966
EU0100	CEU0160	CM-4c	clinker transfer - west belt conveyor to south tripper belt	KDC-1C	DCE Vokes	1966
EU0110	CEU0170	CM-12c	clinker hopper			1966
EU0120	CEU0180	CM-7a	clinker transfer - hopper to conveyor belt	KDC-3	DCE Vokes	1966
EU0130	CEU0190	CM-7b	clinker transfer - conveyor belt to elevator	-		1966
EU0140	CEU0200	CM-8	clinker storage silos - F Silos	KDC-3	DCE Vokes	1966
EU0150	CEU0210	CM-8a	clinker storage silos - North Silos	KDC-1	DCE Vokes	1966

EU0160	CEU0220	CM-8b	<i>clinker storage silos - South Silos</i>	KDC-2	DCE Vokes	1966
EU0170	CEU0230	CM-8c	<i>clinker storage silos - North interstices</i>	FDC-1F	BHA	1966
EU0180	CEU0240	CM-8d	<i>clinker storage silos - South interstices</i>	FDC-2F	BHA	1966
EU0190	CEU0250	CM-9.1a,b,c,2a,b,c	<i>clinker weighing and transfer - mill 1-2</i>	FDC-1a,b,c/FCC-2a,b,c	Flex -Kleen	1966
EU0200	CEU0260	CM-10	clinker grinding (mill # 1)	FDC-1E	BHA	1966
EU0210	CEU0270	CM-10a	Finish Mill #1 Elevator	O-Sepa - 1DC	Fuller	1966
EU0220	CEU0270a	CM-10c	finish mill #1 air separator	O-Sepa - 1DC	Fuller	1966
EU0230	CEU0270b	CM-10d	finish mill #1 - surge bin	O-Sepa - 1DC	Fuller	1966
EU0240	CEU0280	CM-10e	finish mill #1 - 1G fringe bin	FDC-1 A	Flex -Kleen	1966
EU0245		CM-10j	Mill Building			1966
EU0250	CEU0290	CM-10.1	clinker grinding (mill # 2)	FDC-2E	BHA	1966
EU0260	CEU0300	CM-10F	finish mill #2 - elevator	O-Sepa - 2DC	Fuller/BHA	1966
EU0270	CEU0300a	CM-10g	finish mill #2 air separator	O-Sepa - 2DC	Fuller/BHA	1966
EU0280	CEU0300b	CM-10h	finish mill #2 - surge bin	O-Sepa - 2DC	Fuller/BHA	1966
EU0290	CEU0310	CM-10i	finish mill #2 - 2G fringe bin	FDC-2 A	Flex -Kleen	1966
EU0300	CEU0320	CM-11	<i>clinker reclaim elevator</i>	KDC-3	BHA	1966
EU0310	CEU0330	CM-12	clinker transfer tripper to clinker storage pile	KDC - 5		1966
EU0320	CEU0340	SH-1	cement storage - stockhouse #6	XDC - 1	Torit	1966
EU0330	CEU0350	SH-2	cement storage silos	CDC 1	BHA	1966
EU0340	CEU0360	SH-2	cement storage silos	CDC 2	BHA	1966
EU0350	CEU0370	SH-2	cement storage silos	CDC 3	BHA	1966
EU0360	CEU0380	SH-2	cement storage silos	CDC 4	BHA	1966
EU0370	CEU0390	SH-2	cement storage silos	CDC 5	BHA	1966
EU0380	CEU0400	SH-2	cement storage silos	CDC 6	BHA	1966
EU0390	CEU0420	SH-3	cement transfer - silos into pump/air slide system	CDC 9,10	Flex - Kleen	1966
EU0400	CEU0430	SH-4	cement handling - bulk truck loading lines	CDC 11,12	Flex - Kleen	1966
EU0410	CEU0440	SH-5	cement handling - bulk railcar loading lines	CDC 13,15	W. W. Sly	1966
EU0420	CEU0450	SH-7	cement storage silos	BDC - 1	Dustex	1966
EU0430	CEU0460	SH-8	cement barge loading	BLDC - 1	Fuller	1966
EU0440	CEU0470	SH-9	cement barge loading	BLDC - 2	Fuller	1966
EU0450		SG-10	Syn-Gyp Building			1966

EMISSION UNITS WITHOUT LIMITATIONS

The following list provides a description of the equipment that does not have unit specific limitations at the time of permit issuance.

Description of Emission Source

haul road unpaved - coal barge and truck to coal stockpile
haul road paved - coal barge and truck to coal stockpile
haul road unpaved - clinker barge and truck to stockhouse 5
haul road paved - clinker barge and truck to stockhouse 5
haul road unpaved - coal truck and barge plant entrance to stockhouse 5
haul road paved - coal truck and barge plant entrance to stockhouse 5
haul road unpaved - clinker truck to hopper
coal storage pile (staging)
haul road - coal stockpile to hopper
haul road unpaved - gypsum - plant entrance to stockhouse 5
haul road paved - gypsum - plant entrance to stockhouse 5
gypsum storage pile
haul road - unpaved gypsum from stockhouse 5 to hopper

hopper conveyor
conveyor to elevator transfer point
coal transfer (rail) - elevator to belt conveyor MBE-1/MBC-2
coal transfer point (rail) - belt conveyor to truck
haul road - coal transfer to coal storage pile CG-4
coal transfer point - elevator to coal conveyor MBE-1/MBC-3
coal transfer point - conveyor to conveyor MBC-3/MBC-4
coal transfer point - conveyor to conveyor MBC-4/MBC-5
coal transfer point - conveyor to silo MBC-4/Coal Silo
gypsum transfer point - elevator to conveyor MBE-1/MBC-3
gypsum transfer point - conveyor to conveyor MBC-3/MBC-4
gypsum transfer point - conveyor to silo MBC-4/MBC-5
gypsum transfer point - conveyor MBC-5 to Bin 1
gypsum transfer point - conveyor MBC-6 to Bin 2
coal/coke storage pile
haul road (unpaved) plant entrance to outdoor storage pile
Synthetic Gypsum Storage Pile - outdoor
haul road - unpaved, Synthetic Gypsum Storage Pile to hopper
quarries - drilling
quarries - blasting
quarries - loading haul trucks
haul roads - quarries to primary crusher
haul road unpaved - plant entrance to stockhouse 5 clay
haul road paved - plant entrance to stockhouse 5 clay
haul road, unpaved - plant entrance to underground mine
haul road, unpaved - plant entrance to clay storage pile
clay storage pile (underground mine)
clay storage pile (outdoor)
clay storage pile - stockhouse # 5
haul road, unpaved - clay storage pile to primary crusher
haul roads - stockhouse 5 to primary crusher - clay
raw material unloading
primary crusher
raw material conveyor transfer point LCB 2 to LCB 2a
crushed limestone reclaim hopper
raw material conveyor transfer point LCB 2a to LCB 2b, or RM-13
crushed limestone stockpile - using combined emission factor
raw material conveyor transfer point LCB 2b to LCB 3, or Silo F
transfer, secondary crusher to conveyor to mill, clay
haul road unpaved - plant entrance to underground mine - clay
haul road unpaved - plant entrance to outdoor clay storage pile
clay storage pile - underground
outdoor clay storage pile
haulroad unpaved - clay storage piles to primary crusher
waste dust agglomerator
haul road - waste dust to landfill
waste dust truck un-loading at landfill
waste dust storage pile at landfill
clinker storage pile in stockhouse 5 using combined activity factor

clinker storage pile in stockhouse 5 using wind erosion factor
haul road - clinker from stockhouse 5 to hopper
clinker transfer - outside clinker storage piles to hopper
haul road - outside stockpile to stockhouse 5
outside clinker storage piles using combined emission factor
syn-gyp process building
haul road to storage pile
haul road to highway

DOCUMENTS INCORPORATED BY REFERENCE

These documents have been incorporated by reference into this permit.

- 1) Construction Permit Number 0686-002
- 2) Construction Permit Number 0686-002A
- 3) Construction Permit Number 1086-004
- 4) Construction Permit Number 1086-004A
- 5) Construction Permit Number 1086-004B
- 6) Construction Permit Number 1086-004C
- 7) Construction Permit Number 1086-004D
- 8) Construction Permit Number 0890-008
- 9) Construction Permit Number 0198-014
- 10) Construction Permit Number 122001-014
- 11) Construction Permit Number 092002-022

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II. Plant Wide Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

Permit Condition PW001

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Monitoring and Compliance Provisions §63.1206(a) through (b)(5)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The emission standards and operating requirements apply at all times except: (§63.1206(b)(1)(i))
 - (1) During periods of startup, shutdown and malfunction; and,
 - (2) When hazardous waste is not in the combustion chamber (i.e., the hazardous waste feed to the combustor has been cutoff for a period of time not less than the hazardous waste residence time), and the permittee has documented in the operating record that the permittee is complying with all otherwise applicable requirements and standards promulgated under authority of sections 112 (e.g., subpart LLL of this part for cement kilns) or 129 of the Clean Air Act in lieu of the emission standards of §§63.1203 through 63.1205; the monitoring and compliance standards of §63.1206 and §§63.1207 through 63.1209, except the modes of operation requirements of §63.1209(q); and the notification, reporting, and record keeping requirements of §§63.1210 through 63.1212.. (§63.1206(b)(1)(ii)). (See the alternate mode of operation defined in Appendix A of the Initial Comprehensive Performance Test Plan.)
- Changes in design, operation or maintenance that may adversely affect compliance. If the permittee plans to change (as defined in §63.1205(b)(5)(iii)) the design, operation or maintenance practices of the source in a manner that may adversely affect compliance with an emission standard that is not monitored with a CEMS: (§63.1206(b)(5)(i))
 - (1) Restriction on Waste Burning – Except as provided by §63.1206(b)(5)(i)(C)(2), after the change and prior to submitting the notification of compliance, the permittee must not burn hazardous waste for more than a total of 720 hours (renewable at the discretion of the Administrator) and only for purposes of pretesting or comprehensive performance testing. Pretesting is defined at §63.1207(h)(2)(i), and(ii). (§63.1206(b)(5)(i)(C)(1))
 - (2) The permittee may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. The permittee must specify operating requirements, including limits on operating parameters, that the permittee determines will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. (§63.1206(b)(5)(i)(C)(2))
- Definition of Change – “Change means any change in design, operation, or maintenance practices that were documented in the comprehensive performance test plan, Notification of Compliance, or startup, shutdown, and malfunction plan. (§63.1206(b)(5)(iii))

Compliance Dates:

- The permittee must comply with the standards of this subpart no later than September 30, 2003, unless the Administrator grants an extension of time under §63.6(i) or §63.1213. (§63.1206(a)(1))

Monitoring:

- Changes in design, operation or maintenance that may adversely affect compliance. If the permittee plans to change (as defined in §63.1205(b)(5)(iii)) the design, operation or maintenance practices of the source in a manner that may adversely affect compliance with an emission standard that is not monitored with a CEMS: (§63.1206(b)(5)(i))
The permittee must conduct a comprehensive performance test under the requirements of §§ 63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits as required under § 63.1209, and submit to the Administrator a Notification of Compliance under §§ 63.1207(j) and 63.1210(d); (§63.1206(b)(5)(i)(B))
- The Administrator will determine compliance with the emission standards of this subpart as provided by §63.6(f)(2). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §§63.6(f)(2)(iii)(B) and 63.7(e)(1) to conduct performance testing under representative operating conditions. (§63.1206(b)(2))
- The Administrator will make a finding concerning compliance with the emission standards and other requirements of this subpart as provided by §63.6(f)(3). (§63.1206(b)(3))
- The Administrator may grant an extension of compliance with the emission standards of this subpart as provided by §§63.6(i) and 63.1213. (§63.1206(b)(4))

Record Keeping and Reporting:

- Changes that may adversely affect compliance:
Notification. The permittee must notify the Administrator at least 60 days prior to the change, unless the permittee document circumstances that dictate that such prior notice is not reasonably feasible. The notification must include: (§63.1206(b)(5)(i)(A))
 - (1) A description of the changes and which emission standards may be affected; and (§63.1206(b)(5)(i)(A)(1))
 - (2) (B) A comprehensive performance test schedule and test plan under the requirements of § 63.1207(f) that will document compliance with the affected emission standard(s); (§63.1206(b)(5)(i)(A)(2))
- *Restriction on waste burning:* The permittee may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. The permittee must specify operating requirements, including limits on operating parameters that the permittee determine will ensure compliance with the emission standards of this subpart based on available information. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. (§63.1206(b)(5)(i)(C)(2))
- *Changes that will not affect compliance.* If the permittee determine that a change will not adversely affect compliance with the emission standards or operating requirements, the permittee must document the change in the operating record upon making such change. The permittee must revise as necessary the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up, shutdown, and malfunction plan to reflect these changes. (§63.1206(b)(5)(ii))
- The permittee must maintain copies of the performance test plan, Documentation of Compliance, Notification of Compliance, and start-up shutdown and malfunction plan. The permittee shall keep a copy of the plans, documentation, and notifications on-site at all times. The plans, documentation, and notifications shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.

Permit Condition PW002

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Operating Requirements – General - §63.1206(c)(1)

- **Startup, Shutdown and Malfunction Plan - §63.1206(c)(2)**

- **Automatic Waste Feed Cutoff (AWFCO) - §63.1206(c)(3)**

40 CFR Part 63, Subpart A

General Provisions – Startup, Shutdown and Malfunction Plan §63.6(e)(3)

Emission Limitation:

General:

- The permittee must operate only under the operating requirements specified in the Documentation of Compliance under §63.1211(c) or the Notification of Compliance under §§63.1207(j) and 63.1210(b), except: (§63.1206(c)(1)(i))
 - (1) During performance tests under approved test plans according to §63.1207(e), (f) and (g), and (§63.1206(c)(1)(i)(A))
 - (2) Under the conditions of §63.1206(b)(1)(i) or (ii). (§63.1206(c)(1)(i)(B))
- The Documentation of Compliance and the Notification of Compliance must contain operating requirements including, but not limited to, the operating requirements in §63.1206(c) and §63.1209. (§63.1206(c)(1)(ii))
- Failure to comply with the operating requirements is failure to ensure compliance with the emission standards of this subpart. (§63.1206(c)(1)(iii))
- Operating requirements in the Notification of Compliance are applicable requirements for purposes of Parts 70 and 71 of this chapter. (§63.1206(c)(1)(iv))
- The operating requirements specified in the Notification of Compliance will be incorporated in the Title V permit. (§63.1206(c)(1)(v))

Startup, Shutdown, and Malfunction Plan:

- The permittee is subject to the startup, shutdown and malfunction plan requirements of §63.6(e)(3). (§63.1206(c)(2)(i))
- If the permittee elects to comply with §§270.235(a)(1)(iii), 270.235(a)(2)(iii), or 270.235(b)(1)(ii) of this chapter to address RCRA concerns that the permittee minimizes emissions of toxic compounds from startup, shutdown, and malfunction events (including releases from emergency safety vents). (§63.1206(c)(2)(ii))
- The startup, shutdown, and malfunction plan must include a description of potential causes of malfunctions, including releases from that may result in significant releases of hazardous air pollutants, and actions the source is taking to minimize the frequency and severity of those malfunctions. (§63.1206(c)(2)(ii)(A))
- Permittee must submit the startup, shutdown, and malfunction plan to the Administrator for review and approval. (§63.1206(c)(2)(ii)(B))
- Responsibility of the permittee. The permittee is responsible for ensuring that the permittee submits any supplementary and additional information supporting the plan in a timely manner to enable the Administrator to consider whether to approve the plan. Neither the submittal of the plan, nor the Administrator's failure to approve or disapprove the plan, relieves permittee of the responsibility to comply with the provisions of this subpart. (§63.1206(c)(2)(ii)(B)(2))
- Changes to the plan that may significantly increase emissions: (§63.1206(c)(2)(ii)(C))
 - (1) Permittee must request approval in writing from the Administrator within five days after making a change to the startup, shutdown, and malfunction plan that may significantly increase emissions of hazardous air pollutants. (§63.1206(c)(2)(ii)(C)(1))

- (2) To request approval of such changes to the startup, shutdown, and malfunction plan, permittee must follow the procedures provided by §63.1206(c)(2)(ii)(B) for initial approval of the plan.
(§63.1206(c)(2)(ii)(C)(2))
- The permittee must identify in the plan a projected oxygen correction factor based on normal operations to use during periods of startup and shutdown. (§63.1206(c)(2)(iii))
- Compliance with automatic waste feed cutoff (AWFCO) requirements during malfunctions.
[§63.1206(c)(2)(v)(A)]
 - (1) During malfunctions, the automatic waste feed cutoff requirements of §63.1206(c)(3) continue to apply, except for §§63.1206(c)(3)(v) and (c)(3)(vi). If the permittee exceeds a subpart EEE emission standard monitored by a CEMS or COMs or operating limit specified under §63.1209, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed, except as provided by §63.1206(c)(3)(viii). If the malfunction itself prevents immediate and automatic cutoff of the hazardous waste feed, however, the permittee must cease feeding hazardous waste as quickly as possible. [§63.1206(c)(2)(v)(A)(1)]
 - (2) Although the automatic waste feed cutoff requirements continue to apply during a malfunction, an exceedance of an emission standard monitored by a CEMS or COMS or operating limit specified under §63.1209 is not a violation of subpart EEE if the permittee takes the corrective measures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(A)(2)]
- Compliance with AWFCO requirements when burning hazardous waste during startup and shutdown.
[§63.1206(c)(2)(v)(B)]
 - (1) If the permittee feeds hazardous waste during startup or shutdown, the permittee must include waste feed restrictions (e.g., type and quantity), and other appropriate operating conditions and limits in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(B)(1)]
 - (2) The permittee must interlock the operating limits the permittee establishes under §63.1206(c)(2)(v)(B)(1) with the automatic waste feed cutoff system required under §63.1206(c)(3), except for §§63.1206(c)(3)(v) and (c)(3)(vi). [§63.1206(c)(2)(v)(B)(2)]
 - (3) When feeding hazardous waste during startup or shutdown, the automatic waste feed cutoff system must immediately and automatically cutoff the hazardous waste feed if the permittee exceeds the operating limits the permittee establishes under §63.1206(c)(2)(v)(B)(1), except as provided by §63.1206(c)(3)(viii). [§63.1206(c)(2)(v)(B)(3)]
 - (4) Although the automatic waste feed cutoff requirements of §63.1206 apply during startup and shutdown, an exceedance of an emission standard or operating limit is not a violation of subpart EEE if the permittee complies with the operating procedures prescribed in the startup, shutdown, and malfunction plan. [§63.1206(c)(2)(v)(B)(4)]
- The permittee must record the (projected oxygen correction factor) plan in the operating record.
(§63.1206(c)(2)(iv))
- The permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under §63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the permittee by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's Title V permit. The purpose of the startup, shutdown, and malfunction plan is to:
(§63.6(e)(3)(i))
 - (1) Ensure that, at all times, the permittee operates and maintains affected sources including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; (§63.6(e)(3)(i)(A))
 - (2) Ensure that the permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and (§63.6(e)(3)(i)(B))

- (3) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). (§63.6(e)(3)(i)(C))
- Upon the compliance date, the permittee must operate the hazardous waste combustor with a functioning system that immediately and automatically cuts off the hazardous waste feed, except as provided by §63.1206(c)(3)(viii): (§63.1206(c)(3)(i))
 - (1) When any of the following are exceeded: Operating parameter limits specified under §63.1209; an emission standard monitored by a CEMS; or the allowable combustion chamber pressure; (§63.1206(c)(3)(i)(A))
 - (2) When the span value of any CMS detector, except a CEMS, is met or exceeded; ((§63.1206(c)(3)(i)(B))
 - (3) Upon malfunction of a CMS monitoring an operating parameter limit specified under §63.1209 or an emission level; or (§63.1206(c)(3)(i)(C))
 - (4) When any component of the automatic waste feed cutoff system fails. (§63.1206(c)(3)(i)(D))
- Ducting of Combustion Gases – During an AWFCO, the permittee must continue to duct combustion gases to the air pollution control system while hazardous waste remains in the combustion chamber (i.e., if the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated). (§63.1206(c)(3)(ii))
- Restarting Waste Feed – The permittee must continue to monitor during the cutoff the operating parameters for which limits are established under §63.1209 and the emissions required under that section to be monitored by a CEMS, and the permittee must not restart the hazardous waste feed until the operating parameters and emission levels are within the specified limits. (§63.1206(c)(3)(iii))
- Failure of the AWFCO System – If the AWFCO system fails to automatically and immediately cutoff the flow of hazardous waste upon exceedance of parameter required to be interlocked with the AWFCO system under §63.1206(c)(3)(i), the permittee has failed to comply with the AWFCO requirements of §63.1206(c)(3). (§63.1206(c)(3)(iv))
- Ramping Down Waste Feed – The permittee may ramp down the waste feedrate of pumpable hazardous waste over a period not to exceed one minute, except as provided by §63.1206(c)(3)(viii)(B). If the permittee elects to ramp down the waste feed, the permittee must document ramp down procedures in the operating and maintenance plan. The procedures must specify that the ramp down begins immediately upon initiation of automatic waste feed cutoff and the procedures must prescribe a bona fide ramping down. If an emission standard or operating limit is exceeded during the ramp down, the permittee has failed to comply with the emission standards or operating requirements of this subpart. (§63.1206(c)(3)(viii)(A))
- Ramping Down Waste Feed – If the automatic waste feed cutoff is triggered by an exceedance of any of the following operating limits, the permittee may not ramp down the waste feed cutoff: Minimum combustion chamber temperature, maximum hazardous waste feedrate, or any hazardous waste firing system operating limits that may be established for the permittee's combustor. (§63.1206(c)(3)(viii)(B))

Testing:

- The AWFCO system and associated alarms must be tested at least weekly to verify operability, unless the permittee documents in the operating record that weekly inspections will unduly restrict or upset operations and that less frequent inspection will be adequate. At a minimum, the permittee must conduct operability testing at least monthly. The permittee must document and record in the operating record AWFCO operability test procedures and results. (§63.1206(c)(3)(vii))

Monitoring:

- During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under §63.6(e)(3). (§63.6(e)(3)(ii))

- Corrective Measures – If, after any AWFCO, there is an exceedance of an emission standard or operating requirement, irrespective of whether the exceedance occurred while hazardous waste remained in the combustion chamber (i.e., whether the hazardous waste residence time has transpired since the hazardous waste feed cutoff system was activated), the permittee must investigate the cause of the AWFCO, take appropriate corrective measures to minimize future AWFCOs, and record the findings and corrective measure in the operating record. (§63.1206(c)(3)(v))

Record Keeping:

- The permittee shall keep a copy of the startup, shutdown, malfunction plan on-site at all times. The plan shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.
- When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown and malfunction plan, the permittee shall keep records for that event that demonstrate the procedures specified in the plan were followed. These records may take the form of a “checklist,” or other effective form of record keeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition the permittee shall keep records of these events as specified in §63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction operation and each malfunction of the air pollution control equipment. Furthermore, the permittee shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in §63.10(d)(5). (§63.6(e)(3)(iii))
- If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, and the source exceeds the relevant emission standard, then the permittee must report such actions within two working days after commencing actions inconsistent with the plan, followed by a letter within seven days after the end of the event, in accordance with §63.10(d)(5) (unless the permittee makes alternative reporting arrangements, in advance, with the Administrator) (§63.6(e)(3)(iv))
- The permittee must maintain at the affected source a current startup, shutdown, and malfunction plan and must make the plan available upon request for inspection and copying by the Administrator. In addition, if the startup, shutdown, and malfunction plan is subsequently revised as provided in §63.6(e)(3)(viii), the permittee must maintain at the affected source each previous (i.e., superseded) version of the startup, shutdown, and malfunction plan, and must make each such previous version available for inspection and copying by the Administrator for a period of five years after revision of the plan. If at any time after adoption of a startup, shutdown, and malfunction plan the affected source ceases operation or is otherwise no longer subject to the provisions of part 63, the permittee must retain a copy of the most recent plan for five years from the date the source ceases operation or is no longer subject to part 63 and must make the plan available upon request for inspection and copying by the Administrator. [§63.6(e)(3)(v)]

Record Keeping:

- The permittee must record the startup, shutdown, and malfunction plan in the operating record. [§63.1206(c)(2)(iv)]
- The permittee must document and record in the operating record:
 - (1) Results of an excessive exceedance during malfunctions investigation including a summary of the investigation and evaluation, and any changes to the startup, shutdown and malfunction plan; [§63.1206(c)(2)(iv)(A)(3)(ii)]
 - (2) AWFCO investigation and corrective measures taken; [§63.1206(c)(3)(v)]
 - (3) AWFCO operability test procedures and results; [§63.1206(c)(3)(vii)]
 - (4) Ramp down procedures. [§63.1206(c)(3)(viii)(A)]

Reporting:

- Excessive exceedances during malfunctions. For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60 day block period, the permittee must: [§63.1206(c)(2)(iv)(A)(3)]
 - (1) Within 45 days of the 10th exceedance, complete an investigation of the cause of each exceedance and evaluation of approaches to minimize the frequency, duration, and severity of each exceedance, and revise the startup, shutdown, and malfunction plan as warranted by the evaluation to minimize the frequency, duration, and severity of each exceedance; and [§63.1206(c)(2)(iv)(A)(3)(i)]
 - (2) Record the results of the investigation and evaluation in the operating record, and include a summary of the investigation and evaluation, and any changes to the startup, shutdown, and malfunction plan, in the excess emissions report required under §63.10(e)(3). [§63.1206(c)(2)(iv)(A)(3)(ii)]

Excessive Exceedance Reporting

- For each set of ten exceedances of an emission standard or operating requirement while hazardous waste remains in the combustion chamber (i.e., when the hazardous waste residence time has not transpired since the hazardous waste feed was cutoff) during a 60-day block period, the permittee must submit to the Administrator a written report within five calendar days of the 10th exceedance documenting the exceedances and results of the investigation and corrective measures taken. (§63.1206(c)(3)(vi)(A))
- On a case-by-case basis, the Administrator may require excessive exceedance reporting when fewer than ten exceedances occur during a 60-day period. (§63.1206(c)(3)(vi)(B))

Permit Condition PW003

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Operating Requirements - Combustion System Leaks - §63.1206(c)(5)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

Combustion system leaks of hazardous air pollutants must be controlled by: (§63.1206(c)(5)(i))

- Keeping the combustion zone sealed to prevent combustion system leaks; or (§63.1206(c)(5)(i)(A))
- Maintaining the maximum combustion zone pressure lower than ambient pressure using an instantaneous monitor; or (§63.1206(c)(5)(i)(B))

Alternate Standard Provision:

Combustion system leaks of hazardous air pollutants must be controlled by: (§63.1206(c)(5)(i))

- Upon prior written approval of the Administrator, an alternative means of control to provide control of combustion system leaks equivalent to maintenance of combustion zone pressure lower than ambient pressure. (§63.1206(c)(5)(i)(C))
- Upon prior written approval of the Administrator, other technique(s) which can be demonstrated to prevent fugitive emissions without use of instantaneous pressure limits. (§63.1206(c)(5)(i)(D))

Operating Parameters:

- If the permittee complies with the requirements for combustion system leaks under §63.1206(c)(5) by maintaining the maximum combustion chamber zone pressure lower than ambient pressure to prevent combustion system leaks from hazardous waste combustion, the permittee must perform instantaneous

monitoring of pressure and the automatic waste feed cutoff system must be engaged when negative pressure is not adequately maintained. (§63.1209(p))

Monitoring:

- The permittee must use continuous monitoring systems (CMS) (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §§63.1209(b)(i) and (ii), the permittee must install and operate continuous emission monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
 - (1) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue monitoring operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (2) The permittee is not subject to the CMS requirements during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee must specify in the performance test work plan and Notification of Compliance the method that will be used to control combustion system leaks. If controls combustion system leaks by maintaining the combustion zone pressure lower than ambient pressure using an instantaneous monitor, the permittee must also specify in the performance workplan and Notification of Compliance the monitoring and recording frequency of the pressure monitor, and specify how the monitoring approach will be integrated into the automatic waste feed cutoff system. (§63.1206(c)(5)(ii))
- The permittee shall maintain records on-site for the most recent sixty (60) months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Reporting:

- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.

Permit Condition PW004

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors –
Record keeping and Reporting Requirements - §63.1211(a)**

40 CFR Part 63, Subpart A

**General Provisions – Excess Emissions and Continuous Monitoring System Performance Report and
Summary Report - §63.10(e)(3)**

Emission Limitation:

- The permittee must submit an excessive emissions and continuous monitoring system performance report and summary report as required in §63.10(e)(3). (§63.1211(a))
- The permittee of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when: (§63.10(e)(3)(i))
 - (1) More frequent reporting is specifically required by a relevant standard; (§63.10(e)(3)(i)(A))
 - (2) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or (§63.10(e)(3)(i)(B))
 - (3) The CMS data are to be used directly for compliance determination and the source experienced excess emissions, in which case quarterly reports shall be submitted. Once a source reports excess emissions, the source shall follow a quarterly reporting format until a request to reduce reporting frequency under §63.10(e)(3)(ii) is approved. (§63.10(e)(3)(i)(C))
- The permittee who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met: (§63.10(e)(3)(ii))
 - (1) For one full year (e.g., four quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard; (§63.10(e)(3)(ii)(A))
 - (2) The permittee continues to comply with all record keeping and monitoring requirements specified in this subpart and the relevant standard; (§63.10(e)(3)(ii)(B))
 - (3) The Administrator does object to a reduced frequency of reporting for the affected source, as provided in §63.10(e)(3)(iii). (§63.10(e)(3)(ii)(C))
- As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the permittee shall submit an excess emissions and continuous monitoring system performance (a summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the permittee may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in §63.10(e)(3)(ii) and §63.10(e)(3)(iii). (§63.10(e)(3)(iv))
- All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or post-marked by the 30th day following the end of each calendar half or quarter, as appropriate. (§63.10(e)(3)(v))
- If the total duration of excess emissions or process or control system parameter exceedance for the reporting period is less than 1% of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5% of the total operating time for the reporting period, only the summary report shall be submitted and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator. (§63.10(e)(3)(vii))

- If the total duration of excess emissions or process or control system parameter exceedance for the reporting period is 1% or greater of the total operating time for the reporting period, the total CMS downtime for the reporting period is 5% or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted. (§63.10(e)(3)(viii))

Monitoring:

None.

Record Keeping:

The permittee shall maintain copies of the excess emissions and continuous monitoring system performance report and/or summary report. The permittee shall keep a copy of the reports on site at all times. The reports shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.

Reporting:

- The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the permittee notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5 year record keeping period prior to the intended change, including performance test results, monitoring data and evaluations of permittee's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgement about the source's potential for noncompliance in the future. If the Administrator disapproves the permittee's request to reduce the frequency of reporting, the Administrator will notify the permittee in writing within 45 days after receiving notice of the permittee's intention. The notification from the Administrator to the permittee will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted. (§63.10(e)(3)(iii))
- As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the permittee shall submit an excess emissions and continuous monitoring system performance (an summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. (§63.10(e)(3)(iv))
- Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in §63.10(c)(5) through (c)(13), in §63.8(c)(7) and §63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report. (§63.10(e)(3)(v))
- As required under §63.10(e)(3)(vii) and (viii), one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report – Gaseous and Opacity Excess Emission and Continuous Monitoring system Performance" and shall contain the following information: (§63.10(e)(3)(vi))
 - (1) The company name and address of the affected source; (§63.10(e)(3)(vi)(A))
 - (2) An identification of each hazardous air pollutant monitored at the affected source; (§63.10(e)(3)(vi)(B))
 - (3) The beginning and ending dates of the reporting period; (§63.10(e)(3)(vi)(C))
 - (4) A brief description of the process units; (§63.10(e)(3)(vi)(D))

- (5) The emission and operating parameter limitations specified in the relevant standard(s); (§63.10(e)(3)(vi)(E))
- (6) The monitoring equipment manufacturer(s) and model number(s); (§63.10(e)(3)(vi)(F))
- (7) The date of the latest CMS certification or audit; (§63.10(e)(3)(vi)(G))
- (8) The total operating time of the affected source during the reporting period; (§63.10(e)(3)(vi)(H))
- (9) An emission data summary (or similar summary if the permittee monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes; (§63.10(e)(3)(vi)(I))
- (10) A CMS performance summary (or similar summary if the permittee monitors control system parameter), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime, expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes; (§63.10(e)(3)(vi)(J))
- (11) A description of any changes in CMS, processes, or controls since the last reporting period; ((§63.10(e)(3)(vi)(K))
- (12) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and (§63.10(e)(3)(vi)(L))
- (13) The date of the report. (§63.10(e)(3)(vi)(M))

Permit Condition PW005

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Operating Requirements – Operator Training and Certification - §63.1206(c)(6)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must establish training programs for all categories of personnel whose activities may reasonably be expected to directly affect emissions of hazardous air pollutants from the source. Such persons include, but are not limited to chief facility operators, control room operators, continuous monitoring system operators, persons that sample and analyze feedstreams, persons that manage and charge feedstreams to the combustor, persons that operate emission control devices, and ash and waste handlers. Each training program shall be of a technical level commensurate with the person's job duties specified in the training manual. Each commensurate training program shall require an examination to be administered by the instructor at the end of the training course. Passing of this test shall be deemed the "certification" for personnel, except that for control room operators the training and certification programs shall be as specified in §63.1206(c)(6)(iii) and (iv). (§63.1206(c)(6)(i))
- The permittee must ensure that the source is operated and maintained at all times by persons who are trained and certified to perform these and any other duties that may affect emissions of hazardous air pollutants. A certified control room operator must be on duty at the site at all times the source is in operation. (§63.1206(c)(6)(ii))

- Cement kiln control room operators must be trained and certified under: (§63.1206(c)(6)(iv))
 - (1) A site-specific, source-developed and implemented program that meets the requirements of §63.1206(c)(6)(v); or (§63.1206(c)(6)(iv)(A))
 - (2) A State program. (§63.1206(c)(6)(iv)(B))
- Site-specific, source developed and implemented training programs for control room operators must include the following elements: (§63.1206(c)(6)(v))
 - (1) Training on the following subjects: (§63.1206(c)(6)(v)(A))
 - (a) Environmental concerns, including types of emissions; (§63.1206(c)(6)(v)(A)(1))
 - (b) Basic combustion principles, including products of combustion; (§63.1206(c)(6)(v)(A)(2))
 - (c) Operation of the specific type of combustor used by the operator, including proper startup, waste firing, and shutdown procedures; (§63.1206(c)(6)(v)(A)(3))
 - (d) Combustion controls and continuous monitoring systems; (§63.1206(c)(6)(v)(A)(4))
 - (e) Operation of air pollution control equipment and factors affecting performance; (§63.1206(c)(6)(v)(A)(5))
 - (f) Inspection and maintenance of the combustor, continuous monitoring systems, and air pollution control devices; (§63.1206(c)(6)(v)(A)(6))
 - (g) Actions to correct malfunctions or conditions that may lead to malfunction; (§63.1206(c)(6)(v)(A)(7))
 - (h) Residue characteristics and handling procedures; and (§63.1206(c)(6)(v)(A)(8))
 - (i) Applicable Federal, state, and local regulations, including Occupational Safety and Health Administration workplace standards; and (§63.1206(c)(6)(v)(A)(9))
 - (2) An examination designed and administered by the instructor; and (§63.1206(c)(6)(v)(B))
 - (3) Written material covering the training course topics that may serve as reference material following completion of the course. (§63.1206(c)(6)(v)(C))
- To maintain control room operator qualification under a site-specific, source developed and implemented training program as provided by §63.1206(c)(6)(v), control room operators must complete an annual review or refresher course covering, at a minimum, the following topics: (§63.1206(c)(6)(vi))
 - (1) Update of regulations; (§63.1206(c)(6)(vi)(A))
 - (2) Combustor operation, including startup and shutdown procedures, waste firing, and residue handling; (§63.1206(c)(6)(vi)(B))
 - (3) Inspection and maintenance; (§63.1206(c)(6)(vi)(C))
 - (4) Responses to malfunctions or conditions that may lead to malfunction; and (§63.1206(c)(6)(vi)(D))
 - (5) Operating problems encountered by the operator. (§63.1206(c)(6)(vi)(E))

Monitoring:

- The permittee must establish a training and certification program for each person who has responsibilities affecting operations that may affect emissions of hazardous air pollutants from the source. (§63.1206(c)(6)(i))

Record Keeping and Reporting:

- The permittee must record the operator training and certification program in the operating record. (§63.1206(c)(6)(vii))
- The permittee shall maintain training records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Permit Condition PW006

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Operating Requirements – Operation and Maintenance Plan - §63.1206(c)(7)

40 CFR Part 63, Subpart A

General Provisions – Operation and Maintenance Requirements §63.6(e)(1) and (2)

Emission Limitation:

- The permittee must prepare and at all times operate according to an operation and maintenance plan that describes in detail procedures for operation, inspection, maintenance and corrective measures for all components of the combustor, including associated pollution control equipment, that could affect emissions of regulated hazardous air pollutants. (§63.1206(c)(7)(i)(A))
- The plan must prescribe how the permittee will operate and maintain the combustor in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels achieved during the comprehensive performance test. (§63.1206(c)(7)(i)(B))
- The plan ensures compliance with the operation and maintenance requirements of §63.6(e) and minimizes emissions of pollutants, automatic waste feed cutoffs and malfunctions. (§63.1206(c)(7)(i)(C))
- Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. (§63.6(e)(1)(iii))

Monitoring:

- As specified in the operation and maintenance plan.
- At all times, including periods of startup, shutdown, and malfunction, permittee must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions to the levels required by all relevant standards, , i.e., meet the emission standard or comply with the startup, shutdown, and malfunction plan. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in §63.8(e)(3)), review of operation and maintenance records, and inspection of the source. (§63.6(e)(1)(i))
- Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in §63.6(e)(3). To the extent that an unexpected event arises during a startup, shutdown, or malfunction, the permittee must comply by minimizing emissions during such a startup, shutdown, and malfunction event consistent with safety and good air pollution control practices. (§63.6(e)(1)(ii))

Record Keeping and Reporting:

- The permittee must record the plan in the operating record. (§63.1206(c)(7)(i)(D))
- The permittee shall maintain the records specified in the operation and maintenance plan. The permittee shall maintain training records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Permit Condition PW007

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Operating Requirements – Summary of Notification Requirements - §63.1210(a) – Summary of Reporting Requirements - §63.1211(a)

40 CFR Part 63, Subpart A

General Provisions

Notification, Request, Petition or Application:

Summary of Requirements: (§63.1210(a))

- The permittee must submit the following notifications to the Administrator: (§63.1210(a)(1))
 - (1) Notification of changes in design, operation and maintenance in §63.1206(b)(5)(i).
 - (2) Notification that the permittee is subject to special compliance requirements as specified in §63.9(d).
 - (3) Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan (The permittee may also be required on a case-by-case basis to submit a feedstream analysis plan under §63.1209(c)(3)) as specified in §63.1207(e), §63.9(e), §63.9(g)(1) and (3).
 - (4) Notification and documentation of any change in information already provided under §63.9 as specified in §63.9(j);
 - (5) Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations as specified in §63.1210(b), §63.1207(j), §63.1207(k), §63.1207(l), §63.9(h), §63.10(d)(2) and §63.10(e)(2).
- For notifications required to comply with alternative requirements please refer to §63.1210(a)(2). For record keeping and reporting requirements see §63.1211(b) and §63.1211(a).

Monitoring/Record Keeping

- The permittee must retain the following in the operating record: [§63.1211(b)]
 - (1) Information required to document and maintain compliance with the regulations of subpart EEE, including data recorded by continuous monitoring systems (CMS), and copies of all notifications, reports, plans, and other documents submitted to the Administrator as specified in §63.1200 and §§63.10(b) and (c);
 - (2) If the permittee elects to comply with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of subpart EEE when not burning hazardous waste, the permittee must document in the operating record that the permittee is in compliance with those requirements as specified in §63.1206(b)(1)(ii);
 - (3) Documentation that a change will not adversely affect compliance with the emission standards or operating requirements as specified in §63.1206(b)(5)(ii);
 - (4) Calculation of hazardous waste residence time as specified in §63.1206(b)(11);
 - (5) Startup, shutdown, and malfunction plan as specified in §63.1206(c)(2);
 - (6) Documentation of the permittee's investigation and evaluation of excessive exceedances during malfunctions as specified in §63.1206(c)(2)(v)(A);
 - (7) Corrective measures for any automatic waste feed cutoff that results in an exceedance of an emission standard or operating parameter limit as specified in §63.1206(c)(3)(v);
 - (8) Documentation and results of the automatic waste feed cutoff operability testing as specified in §63.1206(c)(3)(vii);
 - (9) Emergency safety vent operating plan as specified in §63.1206(c)(4)(ii);
 - (10) Corrective measures for any emergency safety vent opening as specified in §63.1206(c)(4)(iii);

- (11) Method used for control of combustion system leaks as specified in §63.1206(c)(5)(ii);
- (12) Operator training and certification program as specified in §63.1206(c)(6);
- (13) Operation and maintenance plan as specified in §63.1206(c)(7)(i)(D);
- (14) Feedstream analysis plan as specified in §63.1209(c)(2);
- (15) Documentation of changes in modes of operation as specified in §63.1209(q);
- (16) Documentation of compliance as specified in §63.1211(c).

The permittee shall maintain all records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Reporting:

- The permittee must submit the following reports to the Administrator: [§63.1211(a)]
 - (1) Compliance progress reports, if required as a condition of an extension of the compliance date granted under §63.6(i) as specified in §63.10(d)(4);
 - (2) Periodic startup, shutdown, and malfunction reports as specified in §63.10(d)(5)(i);
 - (3) Immediate startup, shutdown, and malfunction reports as specified in §63.10(d)(5)(ii);
 - (4) Excessive emissions and continuous monitoring system performance report and summary report as specified in §63.10(e)(3);
 - (5) Startup, shutdown, and malfunction plan as specified in §63.1206(c)(2)(ii)(B);
 - (6) Excessive exceedances reports as specified in §63.1206(c)(3)(vi);
 - (7) Emergency safety vent opening reports as specified in §63.1206(c)(4)(iv).

Permit Condition PW008
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart EEE National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Documentation of Compliance - §63.1211(d) 40 CFR Part 63, Subpart A General Provisions

Emission Limitation:

- By the compliance date, the permittee must develop and include in the operating record a Documentation of Compliance. (§63.1211(c)(1))
- The permittee must comply with the emission standards and operating parameter limits specified in the Documentation of Compliance. (§63.1211(c)(4))

Monitoring:

None.

Record Keeping:

The permittee shall include in the operating record, the Documentation of Compliance. (§63.1211(c)(1))

Reporting:

Documentation of Compliance

- The Documentation of Compliance must identify the applicable emission standards under this subpart and the limits on the operating parameters under §63.1209 that will ensure compliance with those emission standards. (§63.1211(c)(2))
- The permittee must include a signed and dated certification in the Documentation of Compliance that: (§63.1211(c)(3))

- (1) Required CEMs and CMS are installed, calibrated and continuously operating in compliance with the requirements of this subpart; and (§63.1211(d)(3)(i))
- (2) Based on an engineering evaluation prepared under the permittee's direction or supervision in accordance with a system designed to ensure that qualified personnel properly gathered and evaluated the information and supporting documentation and considering at a minimum the design, operation and maintenance characteristics of the combustor and emissions control equipment, the types, quantities, and characteristics of feedstreams and available emissions data: (§63.1211(d)(3)(ii))
 - (a) The permittee is in compliance with the emission standards of this subpart; and (§63.1211(d)(3)(ii)(A))
 - (b) The limits on the operating parameters under §63.1209 ensure compliance with the emission standards of this subpart. (§63.1211(d)(3)(ii)(B))

Permit Condition PW09

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Data Compression - §63.1211(d)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

The permittee may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by §63.1209. The permittee must submit the request for review and approval as part of the comprehensive performance test plan. (§63.1211(d))

Monitoring:

Data Compression:

- The permittee must record a data value at least once each ten minutes. (§63.1211(d)(1))
- For each CEMS or operating parameter for which the permittee request to use data compression techniques, the permittee must recommend: (§63.1211(d)(2))
 - (1) A fluctuation limit that defines the maximum permissible deviation of a new data value from a previously generated value without requiring the permittee to revert to recording each one-minute value. (§63.1211(d)(2)(i))
 - (a) If the permittee exceeds a fluctuation limit, the permittee must record each one-minute value for a period of time not less than ten minutes. (§63.1211(d)(2)(i)(A))
 - (b) If neither the fluctuation limit nor the data compression limit are exceeded during that period of time, the permittee may reinitiate recording data values on a frequency of at least once each ten minutes; and (§63.1211(d)(2)(i)(B))
 - (2) A data compression limit defined as the closest level to an operating parameter limit or emission standard at which reduced data recording is allowed. (§63.1211(d)(2)(ii))
 - (a) Within this level and the operating parameter limit or emission standard, the permittee must record each one-minute average. (§63.1211(d)(2)(ii)(A))
 - (b) The data compression limit should reflect a level at which the permittee is unlikely to exceed the specific operating parameter limit or emission standard, considering its averaging period, with the addition of a new one-minute average. (§63.1211(d)(2)(ii)(B))

Record Keeping:

As required by the data compression techniques.

Reporting:

The permittee may submit a written request to the Administrator for approval to use data compression techniques to record data from CMS, including CEMS, on a frequency less than that required by §63.1209. The permittee must submit the request for review and approval as part of the comprehensive performance test plan. (§63.1211(d))

Permit Condition PW010

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Performance Testing Requirements §63.1207

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The provisions of §63.7 apply, except as noted below: (§63.1207(a))
- Comprehensive Performance Test – The permittee must conduct comprehensive performance tests to demonstrate compliance with the emission standards provided by §63.1203, §63.1204, and §63.1205, establish limits for the operating parameters provided by §63.1209, and demonstrate compliance with the performance specifications for continuous monitoring systems. (§63.1207(b)(1))
- Initial Comprehensive Performance Test Date – Except as provided by §63.1207(c)(2), the permittee must commence the initial comprehensive performance test no later than six months after the compliance date. (§63.1207(c)(1))
- Frequency of Testing – Except as otherwise specified in §63.1207(d)(4), the permittee must conduct testing periodically as prescribed below. The date of commencement of the initial comprehensive performance test is the basis for establishing the deadline to commence the initial confirmatory performance test and the next comprehensive performance test. The permittee may conduct performance testing at any time prior to the required date. The deadline for commencing subsequent confirmatory and comprehensive performance testing is based on the date of commencement of the previous comprehensive performance test. Unless the Administrator grants a time extension under §63.1207(i), the testing must be conducted as follows: (§63.1207(d))
 - (1) Comprehensive Performance Testing – Except as otherwise specified in §63.1207(d)(4), the permittee must commence testing no later than 61 months after the date of commencing the previous comprehensive performance test. If the permittee submits data in lieu of the initial performance test, the permittee must commence the subsequent comprehensive performance test within 61 months of the date six months after the compliance date. (§63.1207(d)(1))
 - (2) Duration of Testing – The permittee must complete performance testing within 60 days after the date of commencement, unless the Administrator determines that a time extension is warranted based on the documentation in writing of factors beyond the permittee's control that prevent the permittee from meeting the 60-day deadline. (§63.1207(d)(3))
- Failure to submit a timely notification of compliance. (§63.1207(k))
 - (1) If the permittee fails to postmark a Notification of Compliance by the specified date, the permittee must cease hazardous waste burning immediately. (§63.1207(k)(1))
 - (2) Prior to submitting a revised Notification of Compliance as provided by §63.1207(k)(3), the permittee may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing and only for a maximum of 720 hours (renewable at the discretion of the Administrator). (§63.1207(k)(2))

- (3) The permittee must submit to the Administrator a Notification of Compliance subsequent to a new comprehensive performance test before resuming hazardous waste burning. (§63.1207(k)(3))
- §63.1209(j) through (p) require the permittee to establish limits on operating parameters based on comprehensive performance testing to ensure the permittee maintains compliance with the emission standards of this subpart. For several parameters, the permittee must establish a limit for the parameter to ensure compliance with more than one emission standard. An example is a limit on minimum combustion chamber temperature to ensure compliance with both the DRE standards of §63.1209(j) and the dioxin/furan standard of §63.1209(k). If the performance tests for such standards are not performed simultaneously, the most stringent limit for a parameter derived from independent performance tests applies. (§63.1209(i))

Notification of Compliance

- The Notification of Compliance status requirements of §63.9(h) apply, except that: (§63.1210(b)(1))
 - (1) The notification is a Notification of Compliance, rather than compliance status: (§63.1210(c)(1)(i))
 - (2) The notification is required for the initial comprehensive performance test and each subsequent comprehensive and confirmatory performance test; and (§63.1210(b)(1)(ii))
 - (3) The permittee must postmark the notification before the close of business on the 90th day following completion of relevant compliance demonstration activity specified in this subpart rather than the 60th day as required by §63.9(h)(2)(ii). (§63.1210(b)(1)(iii))
- Upon postmark of the Notification of Compliance, the operating parameter limits identified in the Notification of Compliance, as applicable, shall be complied with, the limits identified in the Documentation of Compliance or a previous Notification of Compliance are no longer applicable. (§63.1210(c)(2))
- The Notification of Compliance requirements of §63.1207(j) also apply. (§63.1210(c)(3))

Test Plan:

- Content of Performance Test Plan - The provisions of §63.7(c)(2)(i)-(iii) and (v) regarding the content of the test plan apply. In addition, the permittee must include the following information in the test plan: (§63.1207(f))

Comprehensive Performance Test Plan

- An analysis of each feedstream, including hazardous waste, other fuels, and industrial furnace feedstocks, as fired, that includes: (§63.1207(f)(1)(i))
 - (1) Heating value, levels of semivolatile metals, low volatile metals, mercury and total chlorine (organic and inorganic); and (§63.1207(f)(1)(i)(A))
 - (2) Viscosity or description of the physical form of the feedstream; (§63.1207(f)(1)(i)(B))
- For organic hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60: (§63.1207(f)(1)(ii))
 - (1) Except as provided by paragraph f(1)(ii)(o), an identification of such organic hazardous air pollutants that are present in each hazardous waste feedstream. The permittee need not analyze for organic hazardous air pollutants that would reasonably not be expected to be found in the feedstream. The permittee must identify any constituents the permittee excludes from analysis and explain the basis for excluding them. The permittee must conduct the feedstream analysis according to §63.1208(b)(8).; (§63.1207(f)(1)(ii)(A))
 - (a) The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the permittee's responsibility to ensure that the sampling and analysis procedures are unbiased, precise and that the results are representative of the feedstream. (§63.1208(b)(8))

- (2) An approximate quantification of such identified organic hazardous air pollutants in the feedstreams, within the precision produced by the analytical procedures of §63.1208(b)(8); and (§63.1207(f)(1)(ii)(B))
 - (a) The permittee must demonstrate that: (§63.1208(b)(8))
 - (i). Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
 - (ii). The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))
- (3) A description of blending procedures, if applicable, prior to firing the hazardous waste feedstream, including a detailed analysis of the materials prior to blending and blending ratios; (§63.1207(f)(1)(ii)(C))
- (4) The Administrator may approve on a case-by-case basis a hazardous waste feedstream analysis for organic hazardous air pollutants in lieu of the analysis required under §63.1207(f)(1)(ii)(A) if the reduced analysis is sufficient to ensure that the POHCs used to demonstrate compliance with the applicable DRE standard of §63.1203, §63.1204, or §63.1205, continue to be representative of the organic hazardous air pollutants in the permittee's hazardous waste feedstreams; (§63.1207(f)(1)(ii)(D))
- A detailed engineering description of the hazardous waste combustor, including: (§63.1207(f)(1)(iii))
 - (1) Manufacturer's name and model number of the hazardous waste combustor; (§63.1207(f)(1)(iii)(A))
 - (2) Type of hazardous waste combustor; (§63.1207(f)(1)(iii)(B))
 - (3) Maximum design capacity in appropriate units; (§63.1207(f)(1)(iii)(C))
 - (4) Description of the feed system for each feedstream; (§63.1207(f)(1)(iii)(D))
 - (5) Capacity of each feed system; (§63.1207(f)(1)(iii)(E))
 - (6) Description of automatic hazardous waste feed cutoff system(s); (§63.1207(f)(1)(iii)(F))
 - (7) Description of the design, operation and maintenance practices for any air pollution control system; and (§63.1207(f)(1)(iii)(G))
 - (8) Description of the design, operation, and maintenance practices of any stack gas monitoring and pollution control monitoring systems; (§63.1207(f)(1)(iii)(H))
- A detailed description of sampling and monitoring procedure including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency, and planned analytical procedures for sample analysis; (§63.1207(f)(1)(iv))
- A detailed test schedule for each hazardous waste for which the performance test is planned, including date(s), duration, quantity of hazardous waste to be burned, and other relevant factors; (§63.1207(f)(1)(v))
- A detailed test protocol, including, for each hazardous waste identified, the ranges of hazardous waste feedrate for each feed system, and, as appropriate, the feedrates of other fuels and feedstocks, and any other relevant parameters that may affect the ability of the hazardous waste combustor to meet the emission standards; (§63.1207(f)(1)(vi))
- A description of, and planned operating conditions for, any emission control equipment that will be used; (§63.1207(f)(1)(vii))
- Procedures for rapidly stopping the hazardous waste feed and controlling emissions in the event of an equipment malfunction; (§63.1207(f)(1)(viii))
- A determination of the hazardous waste residence time as required by §63.1206(b)(11); (§63.1207(f)(1)(ix))
- If the permittee is requesting to extrapolate metal feedrate limits from comprehensive performance test levels under §§63.1209(l)(1)(i) or 63.1209(n)(2)(ii)(A): (§63.1207(f)(1)(x))
 - (1) A description of the extrapolation methodology and rationale for how the approach ensures compliance with the emission standards; (§63.1207(f)(1)(x)(A))

- (2) Documentation of the historical range of normal (i.e., other than during compliance testing) metals feedrates for each feedstream; (§63.1207(f)(1)(x)(B))
 - (3) Documentation that the level of spiking recommended during the performance test will mask sampling and analysis imprecision and inaccuracy to the extent that the extrapolated feedrate limits adequately assure compliance with the emission standards.
- If the permittee does not continuously monitor regulated constituents in natural gas, process air feedstreams, and feedstreams from vapor recovery systems under §63.1209(c)(5), the permittee must include documentation of the expected levels of regulated constituents in those feedstreams; (§63.1207(f)(1)(xi))
 - Documentation justifying the duration of system conditioning required to ensure the combustor has achieved steady-state operations under performance test operating conditions, as provided by §63.1207(g)(1)(iii); and (§63.1207(f)(1)(xii))
 - If the permittee is not required to conduct performance testing to document compliance with the mercury, semivolatile metal, low volatile metal or hydrochloric acid/chlorine gas emission standards under §63.1207(m), the permittee must include with the comprehensive performance test plan documentation of compliance with the provisions of §63.1207(m). (§63.1207(f)(xvi))
 - If the permittee proposes to use a surrogate for measuring or monitoring gas flowrate, the permittee must document in the comprehensive performance test plan that the surrogate adequately correlates with gas flowrate, as required by §63.1207(m)(7) and §63.1209(j)(2), (k)(3), (m)(2)(i), (m)(5)(i) and (o)(2)(i). (§63.1207(f)(1)(xvii))
 - The permittee must submit an application to request alternative monitoring under §63.1209(g)(1) not later than with the comprehensive performance test plan, as required by §63.1209(g)(1)(iii)(A). (§63.1207(f)(1)(xviii))
 - The permittee must document the temperature location measurement in the comprehensive performance test plan, as required by §§63.1209(j)(1)(i) and 63.1209(k)(2)(i). (§63.1207(f)(1)(xix))
 - For purposes of calculating semivolatile metal, low volatile metal, mercury, and total chlorine (organic and inorganic), and ash feedrate limits, a description of how the permittee will handle performance test feedstream analytical results that determines these constituents are not present at detectable levels. (§63.1207(f)(1)(xxvi))
 - If the permittee is not required to conduct performance testing to document compliance with the mercury, semivolatile metal, low volatile metal, or hydrochloric acid/chlorine gas emission standard under §63.1207(m), the permittee must include with the comprehensive performance test documentation of compliance with the provisions of that section. (§63.1207(f)(1)(xxvii))

Monitoring:

- The permittee must calculate the hazardous waste residence time and include the calculation in the performance test plan under §63.1207(f) and the operating record. The permittee must also provide the hazardous waste residence time in the Documentation of Compliance under §63.1211(d) and the Notification of Compliance under §§63.1207(j) and 63.1210(d). (§63.1206(b)(11))
- The permittee must conduct a minimum of three runs of a performance test required under §63.1207 to document compliance with the emission standards of this subpart. (§63.1206(b)(12)(i))
- The permittee must document compliance with the emission standards based on the arithmetic average of the emission results of each run, except that the permittee must document compliance with the destruction and removal efficiency standard for each run of the comprehensive performance test individually. (§63.1206(b)(12)(ii))
- Changes in design, operation or maintenance – The permittee must conduct a comprehensive performance test under the requirements of §§63.1207(f)(1) and (g)(1) to document compliance with the affected emission standard(s) and establish operating parameter limits are required under §63.1209, and submit to the Administrator a Notification of Compliance under §§63.1207(j) and 63.1210(d); and (§63.1206(b)(5)(i)(B))

- The permittee must comply with the provisions of §63.7(e). Conducting performance testing under operating conditions representative of the extreme range of normal conditions is consistent with the requirements of §63.7(e)(1) to conduct performance testing under representative operating conditions. (§63.1207(g))

Comprehensive Performance Testing:

- Operations During Testing – For the following parameters, the permittee must operate the combustor during the performance test under normal conditions (or conditions that will result in higher than normal emissions): (§63.1207(g)(1)(i))
 - (1) The permittee must feed normal (or higher) levels of chlorine during the dioxin/furan performance test; (§63.1207(g)(1)(i)(A))
 - (2) The permittee must conduct the following tests when the particulate matter control device undergoes its normal (or more frequent) cleaning cycle; the particulate matter, semivolatile metal, and low volatile metal performance tests.
- Given that the permittee must establish limits for the applicable operating parameters specified in §63.1209 based on operations during the comprehensive performance test, the permittee may conduct testing under two or more operating modes to provide operating flexibility. (§63.1207(g)(1)(ii))
- Prior to obtaining performance test data, the permittee must operate under performance test conditions until the permittee reaches steady-state operations with respect to emissions of pollutants, the permittee must measure during the performance test and operating parameters under §63.1209 for which the permittee must establish limits. During system conditioning, the permittee must ensure that each operating parameter for which the permittee must establish a limit is held at the level planned for the performance test. The permittee must include documentation in the performance test plan under §63.1207(f) justifying the duration of system conditioning. (§63.1207(g)(1)(iii)(A))
- If the permittee operates a hazardous waste cement kiln that recycles collected particulate matter (i.e., cement kiln dust) into the kiln – The permittee must sample and analyze the recycled particulate matter prior to obtaining performance test data for levels of selected metals that must be measured during performance testing to document that the system has reached steady-state conditions (i.e., that metal levels have stabilized). The permittee must document the rationale for selecting metals that are indicative of system equilibrium and include the information in the performance test plan under §63.1207(f). To determine system equilibrium, the permittee must sample and analyze the recycled particulate matter hourly for each selected metal, unless the permittee submits in the performance test plan a justification for reduced sampling and analysis and the Administrator approves in writing a reduced sampling and analysis frequency. (§63.1207(g)(1)(iii)(B))

Subsequent Testing:

- Current operating parameter limits established under §63.1209 are waived during subsequent comprehensive performance testing. (§63.1207(h)(1))
- Current operating parameter limits are also waived during pretesting prior to comprehensive performance testing for an aggregate time not to exceed 720 hours of operation (renewable at the discretion of the Administrator), Under an approved test plan or if the source records the results of pretesting. Pretesting means: (§63.1207(h)(2))
 - (1) Operations when stack emissions testing for dioxin/furan, mercury, semivolatile metals, low volatile metals, particulate matter, or hydrochloric acid/chlorine gas is being performed; and (§63.1207(h)(2)(i))
 - (2) Operations to reach steady-state operating conditions prior to stack emissions testing under §63.1207(g)(1)(iii). (§63.1207(h)(2)(ii))

Failure of Performance Test:

The provisions of this paragraph do not apply to the initial comprehensive performance test if the permittee conducts the test prior to September 30, 2003 (or later compliance date approved under §63.6(i)).

- If the permittee determines (based on CEM recordings, results of analyses of stack samples, or results of CMS performance evaluations) that the permittee has exceeded any emission standard during a comprehensive performance test for a mode of operation, the permittee must cease hazardous waste burning immediately under that mode of operation. The permittee must make this determination within 90 days following completion of the performance test. (§63.1207(l)(1)(i))
- If the permittee has failed to demonstrate compliance with the emission standards for any mode of operation: (§63.1207(l)(1)(ii))
 - (1) Prior to submitting a revised Notification of Compliance as provided by §63.1207(l)(1)(ii)(C), the permittee may burn hazardous waste only for the purpose of pretesting or comprehensive performance testing under revised operating conditions, and only for a maximum of 720 hours (renewable at the discretion of the Administrator), except as provided by §63.1207(l)(3); (§63.1207(l)(1)(ii)(A))
 - (2) The permittee must conduct a comprehensive performance test under revised operating conditions following the requirements for performance testing of this section; and (§63.1207(l)(1)(ii)(B))
 - (3) The permittee must submit to the Administrator a Notification of Compliance subsequent to the new comprehensive performance test. (§63.1207(l)(1)(ii)(C))
- The permittee may petition the Administrator to obtain written approval to burn hazardous waste in the interim prior to submitting a Notification of Compliance for purposes other than testing or pretesting. The permittee must specify operating requirements, including limits on operating parameters, that the permittee determines will ensure compliance with the emission standards of this subpart based on available information including data from the failed performance test. The Administrator will review, modify as necessary, and approve if warranted the interim operating requirements. An approval of interim operating requirements will include a schedule for submitting a Notification of Compliance. (§63.1207(l)(3))

Record Keeping:

- The permittee shall maintain a copy of the following in the operating record:
 - (1) Intent to conduct a comprehensive performance test;
 - (2) CMS performance evaluation;
 - (3) Site-specific test plan;
 - (4) CMS performance evaluation plan;
 - (5) Public notice for the approved test and CMS performance evaluation plans;
 - (6) Comprehensive performance test plan results;
 - (7) CMS performance evaluation;
 - (8) Extension requests for performance testing;
 - (9) Approval/denial for the extension requests for performance testing;
 - (10) Notification of Compliance;
 - (11) Extension request for the Notification of Compliance; and
 - (12) Approval/denial for the extension request for Notification of compliance.
- The permittee shall maintain records on-site for the most recent sixty (60) months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Reporting:

- Notification of performance test and CMS performance evaluation, and approval of test plan and CMS performance evaluation plan. [§63.1207(e)]
- The provisions of §63.7(b) and (c) and §63.8(e) apply, except: (§63.1207(e)(1))

- Comprehensive Performance Test – The permittee must submit to the Administrator a notification of intent to conduct a comprehensive performance test and CMS performance evaluation and a site-specific test plan and CMS performance evaluation plan at least one year before the performance test and performance evaluation are scheduled to begin. (§63.1207(e)(1)(i))
 - (1) The Administrator will notify the permittee of approval or intent to deny approval of the test plan and CMS performance test evaluation plan within nine months after receipt of the original plan. (§63.1207(e)(1)(i)(A))
 - (2) The permittee must submit to the Administrator a notification of the permittee's intention to conduct the comprehensive performance test at least 60 calendar days before the test is scheduled to begin. (§63.1207(e)(1)(i)(B))
- After the Administrator has approved the test and CMS performance evaluation plans, the permittee must make the plans available to the public for review. The permittee must issue a public notice announcing the approval of the plans and the location where the plans are available for review. (§63.1207(e)(2))
- After the initial comprehensive performance test, the permittee may request up to a one-year time extension for conducting a comprehensive or confirmatory performance test to consolidate performance testing with other state or federally required emission testing, or for other reasons deemed acceptable by the Administrator. If the Administrator grants a time extension for a comprehensive performance test, the deadlines for commencing the next comprehensive and confirmatory tests are based on the date that the subject comprehensive performance test commences. (§63.1207(i))
 - (1) The permittee must submit in writing to the Administrator any request under §63.1207(i) for a time extension for conducting a performance test. (§63.1207(i)(1))
 - (2) The permittee must include in the request for an extension for conducting a performance test the following: (§63.1207(i)(2))
 - (i) A description of the reasons for requesting the time extension; (§63.1207(i)(2)(i))
 - (ii) The date by which the permittee will commence performance testing. (§63.1207(i)(2)(ii))
 - (3) The Administrator will notify the permittee in writing of approval or intention to deny approval of the permittee's request for an extension for conducting a performance test within 30 calendar days after receipt of sufficient information to evaluate the permittee's request. The 30-day approval or denial period will begin after the permittee has been notified in writing that the permittee's application is complete. The Administrator will notify the permittee in writing whether the application contains sufficient information to make a determination within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that the permittee submits. (§63.1207(i)(3))
 - (4) When notifying the permittee that the application is not complete, the Administrator will specify the information needed to complete the application. The Administrator will also provide notice of opportunity for the permittee to present, in writing, within 30 calendar days after notification of the incomplete application, additional information or arguments to the Administrator to enable further action on the application. (§63.1207(i)(4))
 - (5) Before denying any request for an extension for performance testing, the Administrator will notify the permittee in writing of the Administrator's intention to issue the denial, together with: (§63.1207(i)(5))
 - (i) Notice of information and findings on which the intended denial is based; and (§63.1207(i)(5)(i))
 - (ii) Notice of opportunity for the permittee to present in writing, within 15 calendar days after notification of the intended denial, additional information or arguments to the Administrator before further action on the request. (§63.1207(i)(5)(ii))
 - (6) The Administrator's final determination to deny any request for an extension will be in writing and will set forth specific grounds upon which the denial is based. The final determination will be made within 30 calendar days after the presentation of additional information or argument (if the application is complete), or within 30 days after the final date specified for the presentation if no presentation is made. (§63.1207(i)(6))

- Notification of Compliance – Comprehensive Performance Test – Except as provided by paragraphs (j)(4) and (j)(5) of this section, within 90 days of completion of a comprehensive performance test, the permittee must postmark a Notification of Compliance documenting compliance or noncompliance with the emission standards and continuous monitoring system requirements and identifying operating parameter limits under §63.1209. (§63.1207(j)(1)(i))
- Notification of Compliance – Comprehensive Performance Test - Upon postmark of the Notification of Compliance, the permittee must comply with all operating requirements specified in the Notification of Compliance in lieu of the limits specified in the Documentation of Compliance required under §63.1211(c). (§63.1207(j)(1)(ii))
- See §§63.7(g), 63.9(h) and 63.1210(b) for additional requirements pertaining to the Notification of Compliance (e.g., the permittee must include results of performance tests in the Notification of Compliance). (§63.1207(j)(3))
- Time extension – The permittee may submit a written request to the Administrator for a time extension documenting that, for reasons beyond the permittee's control, the permittee may not be able to meet the 90-day deadline for submitting the Notification of Compliance after completion of testing. The Administrator will determine whether a time extension is warranted. (§63.1207(j)(4))
- Failure to Submit Timely Notification of Compliance – The permittee must submit to the Administrator a Notification of compliance subsequent to a new comprehensive performance test before resuming hazardous waste burning. (§63.1207(k)(3))

Permit Condition PW011

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors –

Waiver of Performance Test §63.1207

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The waiver provision of §63.1207(m) applies in addition to the provisions of §63.7(h). (§63.1207(m)(1))
- The permittee is not required to conduct performance tests to document compliance with the mercury, semivolatile metal, low volatile metal or hydrochloric acid/chlorine gas emission standards under the conditions specified below. The permittee is deemed to be in compliance with an emission standard if the twelve-hour rolling average maximum theoretical emission concentration (MTEC) determined as specified below does not exceed the emission standard: (§63.1207(m)(2))
 - (1) Determine the feedrate of mercury, semivolatile metals, low volatile metals, or total chlorine and chloride from all feedstreams; (§63.1207(m)(2)(i))
 - (2) Determine the stack gas flowrate; and (§63.1207(m)(2)(ii))
 - (3) Calculate a MTEC for each standard assuming all mercury, semivolatile metals, low volatile metals, or total chlorine (organic and inorganic) from all feedstreams is emitted; (§63.1207(m)(2)(iii))

Monitoring:

- To document compliance with this provision, the permittee must: (§63.1207(m)(3))
 - (1) Monitor and record the feedrate of mercury, semivolatile metals, low volatile metals, and total chlorine and chloride from all feedstreams according to §63.1209(c) as specified in PW012; (§63.1207(m)(3)(i))

- (2) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that the permittee has correlated to gas flowrate); (§63.1207(m)(3)(ii))
- (3) Continuously calculate and record in the operating record the MTEC under the procedures of §63.1207(m)(2); and (§63.1207(m)(3)(iii))
- (4) Interlock the MTEC calculated in §63.1207(m)(2)(iii) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the emission standard. (§63.1207(m)(3)(iv))
- In lieu of the requirement in §63.1207(m)(3)(iii) and (iv), the permittee may: (§63.1207(m)(4))
 - (1) Identify in the notification of compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride from all feedstreams that ensures the MTEC as calculated in §63.1207(m)(2)(iii) is below the applicable emission standard; and (§63.1207(m)(4)(i))
 - (2) Interlock the minimum gas flowrate limit and maximum feedrate limit in §63.1207(m)(3)(iv) to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury, semivolatile metals, low volatile metals, and/or total chlorine and chloride feedrate exceeds the limit in §63.1207(m)(4)(i). (§63.1207(m)(4)(ii))
- When the permittee determines the feedrate of mercury, semivolatile metals, low volatile metals or total chlorine and chloride for purposes of this provision, except as provided by §63.1207(m)(6), the permittee must assume that the analyte is present at the full detection limit when the feedstream analysis determines that the analyte is not detected in the feedstream. (§63.1207(m)(5))
- The permittee may assume that mercury is present in raw material at half the detection limit when the raw material feedstream analysis determines that mercury is not detected. (§63.1207(m)(6))

CMS Monitoring

- The permittee must use continuous monitoring systems (CMS) (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- The permittee must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))
- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 P.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values with 60 second, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute

values will be available for calculating initial 12-hour hourly rolling average) respectively, from the time at which compliance begins.

- (2) The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
- (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall specify the method used for determining compliance with the mercury, semivolatile metal, low volatile metal or hydrochloric acid/chlorine gas emission standards.
- If the permittee complies with the requirements under §63.1207(m), the permittee shall maintain records of:
 - (1) The feedrate of mercury, semivolatile metals, low volatile metals and total chlorine and chloride from all feedstreams; (§63.1207(m)(3)(i))
 - (2) The gas flowrate (either directly or by monitoring a surrogate parameter) in the operating record; (§63.1207(m)(3)(ii))
 - (3) The MTEC in the operating record; and (§63.1207(m)(3)(iii))
 - (4) When the AWFCO system is not burning hazardous waste due to an MTEC exceedance or a gas flowrate exceedance. (§63.1207(m)(3)(iv))
- The permittee shall maintain records of the data recorded by the continuous monitoring system.
- The permittee shall maintain records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Reporting:

- The permittee must state in the site-specific test plan that the permittee submits for review and approval under §63.1207(e) that the permittee intends to comply with the provisions of this paragraph. The permittee must include in the test plan documentation that any surrogate that is proposed for gas flowrate adequately correlates with the gas flowrate. (§63.1207(m)(7))
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.

Permit Condition PW012

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors –
Feedstream Analysis - §63.1207(n)**

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- Prior to feeding the material, the permittee must obtain an analysis of each feedstream that is sufficient to document compliance with the applicable feedrate limits provided by this section. (§63.1209(c)(1))
- The permittee must develop and implement a feedstream analysis plan and record it in the operating record. The plan must specify at a minimum: (§63.1209(c)(2))
 - (1) The parameters for which the permittee will analyze each feedstream to ensure compliance with the operating parameter limits; (§63.1209(c)(2)(i))
 - (2) Whether the permittee will obtain the analysis by performing sampling and analysis or by other methods, such as using analytical information obtained from others or using other published or documented data or information; (§63.1209(c)(2)(ii))
 - (3) How the permittee will use the analysis to document compliance with applicable feedrate limits (e.g., if the permittee blends hazardous wastes and obtains analyses of the waste prior to blending but not of the blended, as-fired, waste, the plan must describe how the permittee will determine the pertinent parameters of the blended waste); (§63.1209(c)(2)(iii))
 - (4) The test methods which the permittee will use to obtain the analyses; (§63.1209(c)(2)(iv))
 - (5) The sampling method which the permittee will use to obtain a representative sample of each feedstream to be analyzed using sampling methods described in Appendix IX, part 266, of chapter 40, or an equivalent method; and (§63.1209(c)(2)(v))
 - (6) The frequency with which the permittee will review or repeat the initial analysis of the feedstream to ensure that the analysis is accurate and up to date. (§63.1209(c)(2)(vi))
- The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that the permittee must conduct performance evaluations of components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207. (§63.1209(d)(1))

Monitoring:

- To comply with the applicable feedrate limits, the permittee must monitor and record feedrates as follows: (§63.1209(c)(4))
 - (1) Determine and record the value of the parameter for each feedstream by sampling and analysis or other method; (§63.1209(c)(4)(i))
 - (2) Determine and record the mass or volume flowrate of each feedstream by a CMS. If the permittee determines flowrate of a feedstream by volume, the permittee must determine and record the density of the feedstream by sampling and analysis (unless the permittee reports the constituent concentration in units of weight per unit volume (e.g., mg/l)); and (§63.1209(c)(4)(ii))
 - (3) Calculate and record the mass feedrate of the parameter per unit time. (§63.1209(c)(4)(iii))
- The permittee is not required to monitor levels of metals or chlorine in the following feedstreams to document compliance with the feedrate limits provided that the permittee document in the comprehensive performance test plan the expected levels of the constituent in the feedstream and account for those assumed feedrate levels in documenting compliance with feedrate limits: natural gas, process air and feedstreams from vapor recovery systems. (§63.1209(c)(5))

- Conduct of Monitoring – The provisions of §63.8(b) apply. (§63.1209(e))
- Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply. (§63.1209(f))

CMS Monitoring

- The permittee must use continuous monitoring systems (CMS) (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- The permittee must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of thermocouples and pyrometers. The calibration of thermocouples must be verified at a frequency and in a manner consistent with manufacturer specifications, but no less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but no less frequent than once per year, unless otherwise approved by the Administrator. And, [§63.1209(b)(2)(i)]
- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) *Calculation of rolling averages initially.* Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g., when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
 - (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall maintain a copy of the feedstream analysis plan on site at all times and maintain a copy in the operating record. (§63.1209(c)(2))
- The permittee shall maintain a record of the value of the parameter for each feedstream by sampling and analysis or other method; (§63.1209(c)(4)(i))
- The permittee shall maintain a record of the mass or volume flowrate of each feedstream by a CMS. If the permittee determines flowrate of a feedstream by volume, the permittee must determine and record the density of the feedstream by sampling and analysis (unless the permittee reports the constituent concentration in units of weight per unit volume (e.g., mg/l); (§63.1209(c)(4)(ii))
- The permittee shall maintain a record of the mass feedrate of the parameter per unit time; (§63.1209(c)(4)(iii))
- The permittee shall maintain records of the data recorded by the continuous monitoring system;
- The permittee shall maintain records on-site for the most recent sixty (60) months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request.

Reporting:

- The permittee must submit the feedstream analysis plan to the Administrator for review and approval, if requested. (§63.1209(c)(3))
- The permittee shall place the feedrate limits in the Title V Operating Permit.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.

Permit Condition PW013

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors –
Alternate Monitoring Requirements Other than Continuous Emissions Monitoring Systems (CEMS) -
§63.1209(g)**

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- Requests to use alternative methods. (§63.1209(g)(1))
 - (1) The permittee may submit an application to the Administrator for approval of alternative monitoring requirements to document compliance with the emission standards of this subpart. For requests to use additional CEMS, however, the permittee must use §63.1209(a)(5) and §63.8(f). (§63.1209(g)(1)(i))
 - (a) The Administrator will not approve averaging periods for operating parameter limits longer than specified unless the permittee documents using data or information that the longer averaging period will ensure that emissions do not exceed levels achieved during the comprehensive performance test over any increment of time equivalent to the time required to conduct three runs of the performance test. (§63.1209(g)(1)(i)(A))
 - (b) If the Administrator approves the application to use an alternative monitoring requirement, the permittee must continue to use that alternative monitoring requirement until the permittee receives approval under §63.1209(g)(1) to use another monitoring requirement. (§63.1209(g)(1)(i)(B))

- (2) The permittee may submit an application to waive an operating parameter limit based on documentation that neither that operating parameter limit nor an alternative operating parameter limit is needed to ensure compliance with the emission standards of this subpart. (§63.1209(g)(1)(ii))
- (3) The permittee must comply with the procedures for applications submitted under §63.1209(g)(1)(i) and (ii): (§63.1209(g)(1)(iii))
- The Administrator may determine on a case-by-case basis at any time (e.g., during review of the comprehensive performance test plan, during compliance certification review) that the permittee may need to limit additional or alternative operating parameters (e.g., opacity in addition to or in lieu of operating parameter limits on the particulate matter control device) or that alternative approaches to establish limits on operating parameters may be necessary to document compliance with the emission standards of this subpart. (§63.1209(g)(2))

Monitoring:

As required by the alternative monitoring request.

Record Keeping:

- The permittee shall maintain a copy of the alternative monitoring application.
- The permittee shall maintain a copy of the alternative monitoring approval or denial.
- As required by the alternative monitoring request.

Reporting:

- The permittee must submit the application to the Administrator not later than the comprehensive performance test plan. (§63.1209(g)(1)(iii)(A))
- The permittee must include the following in the application. (§63.1209(g)(1)(iii)(B))
 - (1) Data or information justifying the request for an alternative monitoring requirement (or for a waiver of an operating parameter limit), such as the technical or economic infeasibility or the impracticality of using the required approach; (§63.1209(g)(1)(iii)(B)(1))
 - (2) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach/technique (e.g., type of detector, monitoring location), the averaging period for the limit, and how the limit is to be calculated; and (§63.1209(g)(1)(iii)(B)(2))
 - (3) Data of information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard, or that it is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. (§63.1209(g)(1)(iii)(B)(3))
- The Administrator will notify the permittee of approval or intention to deny approval of the request within 90 calendar days after receipt of the original request and within 60 calendar days after receipt of any supplementary information the permittee submits. The Administrator will not approve an alternative monitoring request unless the alternative monitoring requirement provides equivalent or better assurance of compliance with the relevant emission standard, or is the monitoring requirement that best assures compliance with the standard and that is technically and economically practicable. Before disapproving any request, the Administrator will notify the permittee of the Administrator's intention to disapprove the request together with: (§63.1209(g)(1)(iii)(C))
 - (1) Notice of the information and findings on which the intended disapproval is based; and (§63.1209(g)(1)(iii)(C)(1))
 - (2) Notice of opportunity for the permittee to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the permittee of intention to disapprove the request, the Administrator will specify how much time the permittee will have after being notified of the intended disapproval to submit the additional information. (§63.1209(g)(1)(iii)(C)(2))

- The permittee is responsible for ensuring that the permittee submits any supplementary and additional information supporting the permittee's application in a timely manner to enable the Administrator to consider the application during review of the comprehensive performance test plan. Neither the permittee's submittal of an application, nor the Administrator's failure to approve or disapprove the application, relieves the permittee of the responsibility to comply with the provisions of this subpart. (§63.1209(g)(1)(iii)(D))

Permit Condition PW014

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Alternate Standards for Existing or New Hazardous Waste Burning Cement Kilns using MACT - §63.1206(b)(10)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee may petition the Administrator to recommend alternative semivolatile metal, low volatile metal, mercury or hydrochloric acid/chlorine gas emission standards if: (§63.1206(b)(10)(i))
 - The permittee cannot achieve one or more of these standards while using MACT because of the raw material contribution to emissions of the regulated metals or hydrochloric acid/chlorine gas; or (§63.1206(b)(10)(i)(A))
 - The permittee determines that mercury is not present at detectable levels in the raw material. (§63.1206(b)(10)(i)(B))
- The alternative standard that the permittee recommends under §63.1206(b)(10)(i)(A) may be an operating requirement, such as a hazardous waste feedrate limitation for metals and/or chlorine, and/or an emission limitation. (§63.1206(b)(10)(ii))
- The alternative standard must include a requirement to use MACT, or better, applicable to the standard for which the source is seeking relief, as defined in §63.1206(b)(10)(viii) and (ix). (§63.1206(b)(10)(iii))
- The permittee must not operate pursuant to the recommended alternative standards in lieu of emission standards specified in §63.1204(a) and (b): (§63.1206(b)(10)(vii))
 - Unless the Administrator approves the provisions of the alternative standard petition request or establishes other alternative standards; and (§63.1206(b)(10)(vii)(A))
 - Until the permittee submits a revised Notification of Compliance that incorporates the revised standards. (§63.1206(b)(10)(vii)(B))

Monitoring:

As specified in the alternate plan approved by the Administrator.

Record Keeping:

As specified in the alternate plan approved by the Administrator.

Reporting:

Alternative Standard Petition

- The alternative standard petition the permittee submits under §63.1206(b)(10)(i)(A) must include data or information documenting that raw material contributions to emissions of the regulated metals or hydrochloric acid/chlorine gas prevents the permittee from complying with the emission standard even

though the source is using MACT, as defined in §63.1206(b)(10)(viii) and (ix), for the standard for which the permittee is seeking relief. (§63.1206(b)(10)(iv)(A))

- Alternate standard petitions that the permittee submits under §63.1206(b)(10)(i)(B) must include data or information documenting that mercury is not present at detectable levels in raw materials. (§63.1206(b)(10)(iv)(B))
- The permittee must include data or information with semivolatile metal and low volatility metal alternative standard petitions that the permittee submits under §63.1206(b)(10)(i)(A) documenting that increased chlorine feedrates associated with the burning of hazardous waste, when compared to non-hazardous waste operations, do not significantly increase metal emissions attributable to raw materials. (§63.1206(b)(10)(v))
- The permittee must include data or information with semi-volatile metal, low volatile metal and hydrochloric acid/chlorine gas alternative standard petitions that the permittee submits under §63.1206(b)(10)(i)(A) documenting that semivolatile metal, low volatile metal and hydrochloric acid/chlorine gas emissions attributable to the hazardous waste only will not exceed the emission standards in §63.1204(a) and (b). (§63.1206(b)(10)(vi))

Permit Condition PW015

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Startup, Shutdown and Malfunction Plan §63.1354(b)(4) and (b)(5)

40 CFR Part 63, Subpart A

General Provisions – Startup, Shutdown and Malfunction Plan §63.6(e)(3)

Emission Limitation:

- The permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under §63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the permittee by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit. The purpose of the startup, shutdown, and malfunction plan is to: (§63.6(e)(3)(i))
- Ensure that, at all times, the permittee operates and maintains affected sources including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; (§63.6(e)(3)(i)(A))
- Ensure that the permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and (§63.6(e)(3)(i)(B))
- Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation). (§63.6(e)(3)(i)(C))

Monitoring:

During periods of startup, shutdown, and malfunction, the permittee shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under §63.6(e)(3)(i). (§63.6(e)(3)(ii))

Record Keeping:

- The permittee shall keep a copy of the startup, shutdown, malfunction plan on-site at all times. The plan shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.
- When actions taken by the permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the startup, shutdown and malfunction plan, the permittee shall keep records for that event that demonstrate the procedures specified in the plan were followed. These records may take the form of a “checklist,” or other effective form of record keeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition the permittee shall keep records of these events as specified in §63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction operation and each malfunction of the air pollution control equipment. (§63.6(e)(3)(iii))
- If an action taken by the permittee during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the startup, shutdown, and malfunction plan, the permittee shall record the actions taken for that event. (§63.6(e)(3)(iv))

Reporting:

- As required by §63.10(d)(5), if actions taken by an permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source’s startup, shutdown, and malfunction plan specified in §63.6(e)(3), the permittee shall state such information in a semiannual report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report may be submitted simultaneously with the excess emissions and continuous monitoring system performance reports; and (§63.1354(b)(4))
- Any time an action taken by an permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures in the startup, shutdown, and malfunction plan, the permittee shall make an immediate report of the actions taken for that event within 2 working days, by telephone call or facsimile (FAX) transmission. The immediate report shall be followed by a letter, certified by the permittee or other responsible official, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. (§63.1354(b)(5))

Permit Condition PW016

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Operations and Maintenance Plan §63.1350(a) and (b)

40 CFR Part 63, Subpart A

General Provisions – Operation and Maintenance Requirements §63.6(e)(1) and (2)

Emission Limitation:

- The permittee shall prepare for each affected source subject to the provisions of this subpart, a written operations and maintenance plan. The plan shall include the following information: (§63.1350(a))
 - (1) Procedures for proper operation and maintenance of the affected source and air pollution control devices in order to meet the emission limits and operating limits of §§63.1343 through 63.1348; (§63.1350(a)(1))
 - (2) Corrective actions to be taken when required by §63.1350(e); (§63.1350(a)(2))

- (3) Procedures to be used during an inspection of the components of the combustion system of each kiln and each in-line kiln raw mill located at the facility at least once per year; and (§63.1350(a)(3))
- (4) Procedures to be used to periodically monitor affected sources subject to opacity standards under §§63.1346 and 63.1348. Such procedures must include the provisions of §63.1350(a)(4)(i) through (a)(4)(iv). (§63.1350(a)(4))
 - (a) The permittee must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of Appendix A to part 60 of this chapter. The test must be conducted while the affected source is in operation. (§63.1350(a)(4)(i))
 - (b) If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. (§63.1350(a)(4)(ii))
 - (c) If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emission are observed in six consecutive monthly test. (§63.1350(a)(4)(iii))
 - (d) If visible emissions are observed during any Method 22 test, the permittee must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions. (§63.1350(a)(4)(iv))
 - (e) The requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. (§63.1350(a)(4)(v))
 - (f) If any partially enclosed or unenclosed conveying system transfer point is located in a building, the permittee of the portland cement plant shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of §63.1350(a)(4)(i) through (a)(4)(iv) for each such conveying system transfer point located within the building, or for the building itself, according to §63.1350(a)(4)(vii). (§63.1350(a)(4)(vi))
 - (g) If visible emissions from a building are monitored, the requirements of §63.1350(a)(4)(i) through (iv) apply to the monitoring of the building, and you must also test visible emissions from each side, roof and vent of the building for at least one minute. The test must be conducted under normal operating conditions. (§63.1350(a)(4)(vii))
- Failure to comply with any provision of the operations and maintenance plan developed in accordance with §63.1350(a) shall be a violation of the standard. (§63.1350(b))
- Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards. (§63.6(e)(1)(iii))

Monitoring:

- At all times, including periods of startup, shutdown, and malfunction, the permittee shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards. (§63.6(e)(1)(i))
- Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in §63.6(e)(3) of this section. (§63.6(e)(1)(ii))

Record Keeping:

- As specified in the Operations and Maintenance Plan.
- The permittee shall keep a copy of the Operations and Maintenance plan on-site at all times. The plan shall be made available immediately for inspection to the Department of Natural Resources personnel upon request.

Reporting:

- The plan shall be submitted to the Administrator for review and approval as part of the application for a part 70 permit. (§63.1350(a))
- All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a) shall be included in the semiannual summary report. (§63.1354(b)(9)(v))

Permit Condition PW017

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Notification Requirements §63.1353, Reporting Requirements §63.1354(a) and Record keeping Requirements §63.1355(a) and (b)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The notification provisions of 40 CFR part 63, subpart A that apply and those that do not apply to permittee subject to this subpart are listed in Table 1 of this subpart. If any State requires a notice that contains all of the information required in a notification listed in this section, the permittee may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification. (§63.1353(a))
- Each permittee subject to the requirements of this subpart shall comply with the notification requirements in §63.9 as listed below. (§63.1353(b))

Monitoring and Record Keeping:

- The permittee shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. (§63.1355(a))
- The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3) of this part; and (§63.1355(b))
 - (1) All documentation supporting initial notifications and notifications of compliance status under §63.9; (§63.1355(b)(1))
 - (2) All records of applicability determination, including supporting analyses; and (§63.1355(b)(2))
 - (3) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements (§63.1355(b)(3))

Reporting:

- Initial notifications as required by §63.9(b) through (d). For the purposes of this subpart, a Title V or 40 CFR part 70 permit application may be used in lieu of the initial notification required under §63.9(b), provided the same information is contained in the permit application as required by §63.9(b), and the State to which the permit application has been submitted has an approved operating permit program under part 70 of this chapter and has received delegation of authority from the EPA. Permit applications shall be submitted by the same due dates as those specified for the initial notification. (§63.1353(b)(1))
- Notification of performance tests, as required by §§63.7 and 63.9(e). (§63.1353(b)(2))
- Notification of opacity and visible emission observations required by §63.1349 in accordance with §§63.6(h)(5) and 63.9(f). (§63.1353(b)(3))
- Notification, as required by §63.9(g), of the date that the continuous emission monitor performance evaluation required by §63.8(e) is scheduled to begin. (§63.1353(b)(4))
- Notification of compliance status, as required by §63.9(h). (§63.1353(b)(5))
- The reporting provisions of subpart A of this part that apply and those that do not apply to the permittee subject to this subpart are listed in Table 1 of this subpart. If any State requires a report that contains all of the information required in a report listed in this section, the permittee may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report. (§63.1354(a))
- As required by §63.10(d)(4), the permittee who is required to submit progress reports as a condition of receiving an extension of compliance under §63.6(i) shall submit such reports by the dates specified in the written extension of compliance. (§63.1354(b)(3))
- The permittee shall submit a summary report semiannually which contains the information specified in §63.10(e)(3)(vi). In addition, the summary report shall include (§63.1354(b)(9):
 - (1) All exceedances of maximum control device inlet gas temperature limits specified in §63.1344(a) and (b); (§63.1354(b)(9)(i))
 - (2) All failures to calibrate thermocouples and other temperature sensors as required under §63.1350(f)(7); and (§63.1354(b)(9)(ii))
 - (3) The results of any combustion system component inspections conducted within the reporting period as required under §63.1350(i). (§63.1354(b)(9)(iv))
 - (4) All failures to comply with any provision of the operation and maintenance plan developed in accordance with §63.1350(a). (§63.1354(b)(9)(v))

Permit Condition PW018

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Performance Testing Requirements §63.1349

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee subject to this subpart shall demonstrate initial compliance with the emission limits of §63.1343 and §63.1345 through §63.1348 using the test methods and procedures in §63.1349(b) and §63.7. (§63.1349(a))

Performance Testing:

- Performance tests to demonstrate initial compliance with this subpart shall be conducted as specified in §63.1349(b)(1) through §63.1349(b)(4). (§63.1349(b))

Monitoring:

- As required by the test methods and procedures in §63.1349(b) and §63.7.

Record Keeping:

- As required by the test methods and procedures in §63.1349(b) and §63.7

Reporting:

- Performance test results shall be documented in complete test reports that contain the information required by §63.1349(a)(1) through (a)(10) of this section, as well as all other relevant information. The plan to be followed during testing shall be made available to the Administrator prior to testing, if requested. (§63.1349(a))
- A brief description of the process and the air pollution control system; (§63.1349(a)(1))
- Sampling location description(s); (§63.1349(a)(2))
- A description of sampling and analytical procedures and any modification to standard procedures; (§63.1349(a)(3))
- Test results; (§63.1349(a)(4))
- Quality assurance procedures and results; (§63.1349(a)(5))
- Records of operating conditions during the test, preparation of standards, and calibration procedures; (§63.1349(a)(6))
- Raw data sheets for field sampling and field and laboratory analyses; (§63.1349(a)(7))
- Documentation of calculation; (§63.1349(a)(8))
- All data recorded and used to establish parameters for compliance monitoring; and (§63.1349(a)(9))
- Any other information required by the test method. (§63.1349(a)(10))

Permit Condition PW019

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Alternate Monitoring Requirements §63.1350

Emission Limitation:

- The permittee may submit an application to the Administrator for approval of alternate monitoring requirements to demonstrate compliance with the emission standards of this subpart, except for emission standards for THC, subject to the provisions of §63.1350(l)(1) through (l)(6). (§63.1350(l))
- The Administrator may decide at any time, on a case-by-case basis that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of this subpart. (§63.1350(l)(6))

Monitoring:

- If the application to use an alternate monitoring requirement is approved, the permittee must continue to use the original monitoring requirement until approval is received to use another monitoring requirement. (§63.1350(l)(2))

Record Keeping:

- If the application to use an alternate monitoring requirement is approved, the permittee must continue to use the original record keeping requirements for the original monitoring requirements until approval is received to use another monitoring requirement.

Reporting:

- The Administrator will not approve averaging periods other than those specified in this section, unless the permittee documents, using data or information, that the longer averaging period will ensure that emissions do not exceed levels achieved during the performance test over any increment of time equivalent to the time required to conduct three runs of the performance test. (§63.1350(l)(1))
- The permittee shall submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application must contain the information specified in §63.1350(l)(3)(i) through (l)(3)(iii). (§63.1350(l)(3))
 - (1) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach. (§63.1350(l)(3)(i))
 - (2) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated; and (§63.1350(l)(3)(ii))
 - (3) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard. (§63.1350(l)(3)(iii))
- The Administrator will notify the permittee of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Administrator will not approve an alternate monitoring application unless it would provide equivalent or better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Administrator will provide (§63.1350(l)(4)):
 - (1) Notice of the information and findings upon which the intended disapproval is based; and (§63.1350(l)(4)(i))

- (2) Notice of opportunity for the permittee to present additional supporting information before final action is taken on the application. This notice will specify how much additional time is allowed for the permittee to provide additional supporting information. (§63.1350(l)(4)(ii))
- The permittee is responsible for submitting any supporting information in a timely manner to enable the Administrator to consider the application prior to the performance test. Neither submittal of an application, nor the Administrator's failure to approve or disapprove the application relieves the permittee of the responsibility to comply with any provision of this subpart. (§63.1350(l)(5))

Permit Condition PW020

10 CSR 10-6.170

Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin

Emission Limitation:

- The permittee shall not cause or allow to occur any handling, transporting or storing of any material; construction, repair, cleaning or demolition of a building or its appurtenances; construction or use of a road, driveway or open area; or operation of a commercial or industrial installation without applying reasonable measures as may be required to prevent, or in a manner which allows or may allow, fugitive particulate matter emissions to go beyond the premises of origin in quantities that the particulate matter may be found on surfaces beyond the property line or origin. The nature or origin of the particulate matter shall be determined to a reasonable degree of certainty by a technique proven to be accurate and approved by the director;
- The permittee shall not cause nor allow to occur any fugitive particulate matter emissions to remain visible in the ambient air beyond the property line of origin.
- Should it be determined that noncompliance has occurred, the director may require reasonable control measures as may be necessary.

Monitoring:

- The permittee shall conduct inspections of its facilities sufficient to determine compliance with this regulation. At a minimum, the observer should be trained and knowledgeable about the effects on visibility of emissions caused by background contrast, ambient lighting, observer position relative to lighting, wind and the presence of uncombined water. If a violation of this regulation is discovered, the source shall undertake corrective action to eliminate the violation.

The following monitoring schedule must be maintained:

- (1) Weekly observations shall be conducted for a minimum of four consecutive weeks after permit issuance. Should no violation of this regulation be observed during this period then-
- (2) Observations must be made once every two weeks for a period of four weeks. If a violation is noted, monitoring reverts to weekly. Should no violation of this regulation be observed during this period then-
- (3) Observations must be made once per month. If a violation is noted, monitoring reverts to weekly.
- If the source reverts to weekly monitoring at any time, monitoring frequency will progress in an identical manner to the initial monitoring frequency.

Record Keeping:

- A log must be maintained noting the following:
 - (1) Whether air emissions (except water vapor) remain visible in the ambient air beyond the property line of origin.
 - (2) Whether the visible emissions were normal for the installation.
 - (3) Equipment malfunctions that could cause an exceedance of 10 CSR 10-6.170.
 - (4) Any violations of 10 CSR 10-6.170 and any corrective actions undertaken to correct the violation.

Attachment A contains a log including these record keeping requirements. This log, or an equivalent created by the permittee, must be used to certify compliance with this requirement.

Reporting:

- The permittee shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

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III. Emission Unit Specific Emission Limitations

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

Emission Unit	Continental's Flowchart Reference No.	2000 EIQ Point	Description	Control Device	Manufacture	Year
EU0010	CEU0070	KP-1	cement kiln	ESP	Amer. Air	1966
EU0020	CEU0080	CM-1	clinker cooler	KDC - 5	Amerex	1966
EU0030	CEU0090	CM-1a	dust collector discharges to apron pan conveyor	KDC - 5	Amerex	1966
EU0040	CEU0100	CM-2	clinker transfer drag to apron pan conveyor	KAP - 1	Fuller	1966
EU0050	CEU0110	CM-2a	dust collector discharges to apron pan conveyor	SC-3	Fuller	1966
EU0060	CEU0120	CM-3	clinker apron pan conveyor transfer point to bucket elevator	KAP - 2	Fuller	1966
EU0070	CEU0130	CM-4a	clinker transfer - east elevator to belt conveyor	KDC-1B	DCE Vokes	1966
EU0080	CEU0140	CM-4	clinker transfer - west elevator to belt conveyor	KDC-1A	DCE Vokes BHA	1966
EU0090	CEU0150	CM-4b	clinker transfer - east belt conveyor to north tripper belt	KDC-1D	DCE Vokes BHA	1966
EU0100	CEU0160	CM-4c	clinker transfer - west belt conveyor to south tripper belt	KDC-1C	DCE Vokes	1966
EU0110	CEU0170	CM-12c	clinker hopper			1966
EU0120	CEU0180	CM-7a	clinker transfer - hopper to conveyor belt	KDC-3	DCE Vokes	1966
EU0130	CEU0190	CM-7b	clinker transfer - conveyor belt to elevator	-		1966
EU0140	CEU0200	CM-8	clinker storage silos - F Silos	KDC-3	DCE Vokes	1966
EU0150	CEU0210	CM-8a	clinker storage silos - North Silos	KDC-1	DCE Vokes	1966
EU0160	CEU0220	CM-8b	clinker storage silos - South Silos	KDC-2	DCE Vokes	1966
EU0170	CEU0230	CM-8c	clinker storage silos - North interstices	FDC-1F	BHA	1966
EU0180	CEU0240	CM-8d	clinker storage silos - South interstices	FDC-2F	BHA	1966
EU0190	CEU0250	CM-9, 1a, b, c, 2a, b, c	clinker weighing and transfer - mill 1-2	FDC-1a, b, c/FCC-2a, b, c	Flex -Kleen	1966
EU0200	CEU0260	CM-10	clinker grinding (mill # 1)	FDC-1E	BHA	1966
EU0210	CEU0270	CM-10a	Finish Mill #1 Elevator	O-Sepa - 1DC	Fuller	1966
EU0220	CEU0270a	CM-10c	finish mill #1 air separator	O-Sepa - 1DC	Fuller	1966
EU0230	CEU0270b	CM-10d	finish mill #1 - surge bin	O-Sepa - 1DC	Fuller	1966
EU0240	CEU0280	CM-10e	finish mill #1 - 1G fringe bin	FDC-1 A	Flex -Kleen	1966
EU0245		CM-10j	Mill Building			1966
EU0250	CEU0290	CM-10.1	clinker grinding (mill # 2)	FDC-2E	BHA	1966
EU0260	CEU0300	CM-10F	finish mill #2 - elevator	O-Sepa - 2DC	Fuller/BHA	1966
EU0270	CEU0300a	CM-10g	finish mill #2 air separator	O-Sepa - 2DC	Fuller/BHA	1966
EU0280	CEU0300b	CM-10h	finish mill #2 - surge bin	O-Sepa - 2DC	Fuller/BHA	1966
EU0290	CEU0310	CM-10i	finish mill #2 - 2G fringe bin	FDC-2 A	Flex -Kleen	1966
EU0300	CEU0320	CM-11	clinker reclaim elevator	KDC-3	BHA	1966
EU0310	CEU0330	CM-12	clinker transfer tripper to clinker storage pile	KDC - 5		1966
EU0320	CEU0340	SH-1	cement storage - stockhouse #6	XDC - 1	Torit	1966
EU0330	CEU0350	SH-2	cement storage silos	CDC 1	BHA	1966
EU0340	CEU0360	SH-2	cement storage silos	CDC 2	BHA	1966
EU0350	CEU0370	SH-2	cement storage silos	CDC 3	BHA	1966
EU0360	CEU0380	SH-2	cement storage silos	CDC 4	BHA	1966
EU0370	CEU0390	SH-2	cement storage silos	CDC 5	BHA	1966
EU0380	CEU0400	SH-2	cement storage silos	CDC 6	BHA	1966
EU0390	CEU0420	SH-3	cement transfer - silos into pump/air slide system	CDC 9,10	Flex - Kleen	1966

EU0400	CEU0430	SH-4	cement handling - bulk truck loading lines	CDC 11,12	Flex - Kleen	1966
EU0410	CEU0440	SH-5	cement handling - bulk railcar loading lines	CDC 13,15	W. W. Sly	1966
EU0420	CEU0450	SH-7	cement storage silos	BDC - 1	Dustex	1966
EU0430	CEU0460	SH-8	cement barge loading	BLDC - 1	Fuller	1966
EU0440	CEU0470	SH-9	cement barge loading	BLDC - 2	Fuller	1966
EU0450		SG-10	Syn-Gyp Buiding			1966

Permit Condition EU0010-01

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Dioxins and Furans

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gasses to be emitted into the atmosphere that contain (§63.1204(a)(1):
 - Dioxins and furans in excess of 0.20 ng TEQ/dscm corrected to seven percent (7%) oxygen; or (§63.1204(a)(1)(i))
 - Dioxins and furans in excess of 0.40 ng TEQ/dscm corrected to seven percent (7%) oxygen provided that the combustion gas temperature at the inlet to the initial particulate matter control device is 400°F or lower based on the average of the test run average temperature. (§63.1204(a)(1)(ii))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.
- If the kiln is not burning hazardous waste, the permittee may comply with the alternate mode of operation defined in the Comprehensive Performance Test Plan as follows:

“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”

Operating Parameters:

- The permittee must comply with the dioxin and furans emission standard by establishing and complying with the following operating parameter limits. The permittee must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications (§63.1209(k)) or based upon the results of previous performance tests submitted and approved as data in lieu of testing as described by 63.1206(b)(7).
 - Gas Temperature at the inlet to a dry particulate matter control device. (§63.1209(k)(1))
 - If the combustor is equipped with an electrostatic precipitator, the permittee must establish a limit on the maximum temperature of the gas at the inlet to the device on an hourly rolling

average. The permittee must establish the hourly rolling average limit as the average of the test run averages. (§63.1209(k)(1)(i))

(2) Minimum combustion chamber temperature. (§63.1209(k)(2))

- (a) The permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee must document the temperature measurement location in the test plan the permittee submits under §63.1207(e) and (f); (§63.1209(k)(2)(i))
- (b) The permittee must establish a minimum hourly rolling average limit as the average of the test run averages; (§63.1209(k)(2)(ii)), or based upon the results of previous performance tests submitted and approved as data in lieu of testing as described by 63.1206(b)(7).

(3) Maximum flue gas flowrate or production rate. (§63.1209(k)(3))

- (a) As an indicator of gas residence time in the control device the permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run; (§63.1209(k)(3)(i))
- (b) The permittee must comply with this limit on an hourly rolling average basis; (§63.1209(k)(3)(ii))

(4) Maximum hazardous waste feedrate. (§63.1209(k)(4))

- (a) The permittee must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where waste is fed; (§63.1209(k)(4)(i))
- (b) The permittee must establish the limits as the average of the maximum hourly rolling averages for each run. (§63.1209(k)(4)(ii))
- (c) The permittee must comply with the feedrate limit(s) on a hourly rolling average basis; (§63.1209(k)(4)(iii))

- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- Operating under otherwise applicable standards after the hazardous waste residence time has transpired. As provided by Sec. §63.1206(b)(1)(ii), the permittee may operate under otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act in lieu of the substantive requirements of this subpart. (§63.1209(q)(1))
- The otherwise applicable requirements promulgated under sections 112 and 129 of the Clean Air Act are applicable requirements under this subpart. (§63.1209(q)(1)(i))
- The permittee must specify (e.g., by reference) the otherwise applicable requirements as a mode of operation in the permittee's Documentation of Compliance under Sec. 63.1211(c), the permittee's Notification of Compliance under Sec. 63.1207(j), and the permittee's title V permit application. These requirements include the otherwise applicable requirements governing emission standards, monitoring and compliance, and notification, reporting, and record keeping. (§63.1209(q)(1)(ii))
- Calculating rolling averages under different modes of operation. When the permittee transitions to a different mode of operation, the permittee must calculate rolling averages as follows: (§63.1209(q)(2))
 - (1) Retrieval approach. Calculate rolling averages anew using the continuous monitoring system values previously recorded for that mode of operation (i.e., the permittee ignores continuous monitoring system values subsequently recorded under other modes of operation when the permittee transitions back to a mode of operation); or (§63.1209(q)(2)(i))
 - (2) Start anew. Calculate rolling averages anew without considering previous recordings. (§63.1209(q)(2)(ii))

- (a) Rolling averages must be calculated as the average of the available one-minute values for the parameter until enough one-minute values are available to calculate hourly or 12-hour rolling averages, whichever is applicable to the parameter. (§63.1209(q)(2)(ii)(A))
- (b) The permittee may not transition to a new mode of operation using this approach if the most recent operation in that mode resulted in an exceedance of an applicable emission standard measured with a CEMS or operating parameter limit prior to the hazardous waste residence time expiring; or (§63.1209(q)(2)(ii)(B))
- (3) Seamless transition. Continue calculating rolling averages using data from the previous operating mode provided that both the operating limit and the averaging period for the parameter are the same for both modes of operation. (§63.1209(q)(2)(iii))

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee must use Method 0023A, Sampling Method for Polychlorinated Dibenzo-p-Dioxins and Polychlorinated Dibenzofurans emissions from Stationary Sources, EPA Publication SW-846, as incorporated by reference in §63.1208(a), to determine compliance with the emission standard for dioxins and furans; (§63.1208(b)(1)(i))
- The permittee must sample for a minimum of three hours, and the permittee must collect a minimum sample volume of 2.5 dscm; (§63.1208(b)(1)(ii))
- The permittee may assume that nondetects are present a zero concentration; (§63.1208(b)(1)(iii))

Monitoring:

- The permittee shall comply with the comprehensive and confirmatory performance testing as specified in permit conditions PW011.
- The permittee shall monitor the gas temperature at the inlet to a dry particulate matter control device on an hourly rolling average; (§63.1209(k)(1)(i))
- The permittee shall monitor the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone on an hourly rolling average; (§63.1209(k)(2)(i) and (ii))
- The permittee shall monitor the maximum flue gas flowrate or production rate on an hourly rolling average; (§63.1209(k)(3)(i) and (ii))
- The permittee shall monitor the maximum hazardous waste feedrate for each location where waste is fed on an hourly rolling average; (§63.1209(k)(4)(i) and (ii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode.
- Conduct of monitoring – The provisions of §63.8(b) apply. (§63.1209(e))
- Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: (§63.1209(f))

CMS Monitoring

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) through (ii), the permittee must install and operate continuous emissions monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than

once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))

- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
 - (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive and confirmatory performance testing record keeping requirements as stated in permit conditions PW011.
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - Gas temperature at the inlet to a dry particulate matter control device. (§63.1209(k)(1)(i))
 - Combustion chamber temperature of each chamber; (§63.1209(k)(2)(i))
 - Flue gas flowrate, production rate or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for the gas residence time; (§63.1209(k)(3)(i))
 - Maximum pumpable and total (pumpable and non-pumpable) hazardous waste feedrate for each location where waste is fed. (§63.1209(k)(4)(i))
 - Particulate matter operating limit. (§63.1209(k)(5))
- The permittee shall maintain records of the comprehensive and confirmatory performance test plans.

- The permittee shall maintain records of the comprehensive and confirmatory performance test results.
- The permittee shall maintain records on the calibration checks of the CMS equipment.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- The permittee shall maintain records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive and confirmatory performance testing reporting requirements as stated in permit conditions PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation

Permit Condition EU0010-02
10 CSR 10-6.075 Maximum Achievable Control Technology Regulations 40 CFR Part 63, Subpart EEE National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Mercury 40 CFR Part 63, Subpart A General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain mercury in excess of 120 µg/dscm corrected to 7 percent oxygen; (§63.1204(a)(2))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.
- The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 88 µg/dscm or less; (§63.1206(b)(10)(viii)(A))
- If the kiln is not burning hazardous waste and the permittee is complying with the alternate mode of operation defined in the Comprehensive Performance Test Plan as follows:

“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”, the permittee is not subject to this permit condition, except for the monitoring and record keeping of the hazardous waste feed and the method of compliance.

- The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 120 µg/dscm or less; (§63.1206(b)(15)(ii))
- If the kiln is not burning hazardous waste and the permittee is complying with the requirements of EU0540-10, EU0540-11 and EU0540-12, the permittee is not subject to this permit condition, except for the modes of operation requirements of §63.1209(q). (§63.1206(b)(1)(ii))
- To document compliance with the operating requirement of §63.1206(b)(15)(ii), the permittee must: (§63.1206(b)(15)(iii))
 - (1) Monitor and record the feedrate of mercury for each hazardous waste feedstream according to §63.1209(c); (§63.1206(b)(15)(iii)(A))
 - (2) Monitor with a CMS and record in the operating record the gas flowrate (either directly or by monitoring a surrogate parameter that the permittee has correlated to gas flowrate); (§63.1206(b)(15)(iii)(B))
 - (3) Continuously calculate and record in the operating record a MTEC assuming mercury from all hazardous waste feedstreams is emitted; (§63.1206(b)(15)(iii)(C))
 - (4) Interlock the MTEC calculated in §63.1206(b)(15)(iii)(C) to the AWFCO system to stop hazardous waste burning when the MTEC exceeds the operating requirement of §63.1206(b)(15)(ii). (§63.1206(b)(15)(iii)(D))
- In lieu of the requirement in §63.1206(b)(15)(ii), the permittee may: (§63.1206(b)(15)(iv))
 - (1) Identify in the Notification of Compliance a minimum gas flowrate limit and a maximum feedrate limit of mercury from all hazardous waste feedstreams that ensures the MTEC calculated in §63.1206(b)(15)(iii)(C) is below the operating requirement of §63.1206(b)(15)(ii); and (§63.1206(b)(15)(iv)(A))
 - (2) Interlock the minimum gas flowrate limit and maximum feedrate limits in §63.1206(b)(15)(iv)(A) to the AWFCO system to stop hazardous waste burning when the gas flowrate or mercury feedrate exceeds the limits in §63.1206(b)(15)(iv)(A). (§63.1206(b)(15)(iv)(B))
- Notification requirement. The permittee must notify in writing the RCRA authority that the permittee intends to comply with the alternative standard. (§63.1206(b)(15)(v))

Operating Parameters:

- The permittee must comply with the mercury emission standard by establishing and complying with the following operating parameter limits. The permittee must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications: (§63.1209(l))
 - (1) Feedrate of Total Mercury – The permittee must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of the test run averages, unless mercury feedrate limits are extrapolated from performance test feedrate levels under the following provisions: (§63.1209(l)(1))
 - (a) The permittee may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. (§63.1209(l)(1)(i))

- (b) The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: (§63.1209(l)(1)(ii))
 - (i) Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and (§63.1209(l)(1)(ii)(A))
 - (ii) Whether the extrapolate feedrates the permittee requests are warranted considering historical metal feedrate data. (§63.1209(l)(1)(ii)(B))
- (c) The Administrator will review the performance test results in making a finding of compliance required by §§63.6(f)(3) and 63.1206(b)(3) to ensure that the permittee have interpreted emission test results properly and that the extrapolation procedure is appropriate for the source. (§63.1209(l)(1)(iii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee must use Method 29, provided in Appendix A, part 60 of chapter 40, to demonstrate compliance with the emission standard for mercury. (§63.1208(b)(2))
- The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the responsibility of the permittee to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the permittee must demonstrate that: (§63.1208(b)(8))
 - (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
 - (2) The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))

Monitoring:

- The permittee may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. (§63.1209(a)(5))
- The permittee shall comply with the comprehensive performance testing as specified in permit condition PW011.
- The permittee must establish a 12-hour rolling average limit for the total feedrate of mercury in all feedstreams as the average of test run averages, unless mercury feedrate limits are extrapolated from performance test feedrate levels under the following provisions. (§63.1209(l)(1))
- You may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the mercury feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. (§63.1209(l)(1)(i))
- The extrapolation rate will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: (§63.1209(l)(1)(ii))
- Performance test metal feedrates are appropriate (i.e. whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and (§63.1209(l)(1)(ii)(A))

- Whether the extrapolated feedrates the permittee requests are warranted considering historical metal feedrate data. (§63.1209(l)(1)(ii)(B))
- The Administrator will review the performance test results in making a finding of compliance required by §§ 63.6(f)(3) and 63.1206(b)(3) to ensure that you have interpreted emission test results properly and that the extrapolation procedure is appropriate for your source. (§63.1209(l)(1)(iii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must begin calculating rolling averages anew (i.e., without considering previous recordings) when the permittee begins complying with the operating parameter limits for the alternative mode of operation. (§63.1209(q))
- Conduct of monitoring – The provisions of §63.8(b) apply. (§63.1209(e))
- Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: (§63.1209(f))

CMS Monitoring

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) and (ii), the permittee must install and operate continuous emission monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))
 - (2) Accuracy and calibration of weight measurement devices for activated carbon injection systems. If the permittee operates a carbon injection system the accuracy of the weight measurement device must be ± 1 percent of the weight being measured. The calibration of the device must be verified at least once every three (3) months. (§63.1209(b)(2)(ii))
- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute

values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))

- (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time you meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when you are not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - (1) Total feedrate of mercury in all feedstreams; (§63.1209(l)(1))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- The permittee shall maintain records of the calibration checks of the CMS equipment.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- The permittee shall maintain records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request

Record Keeping /Reporting for Alternate Standard Provision:

- The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-03

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Lead and Cadmium (Semi-Volatile Metals)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain lead and cadmium in excess of 330 µg/dscm, combined emissions, corrected to 7 percent oxygen; (§63.1204(a)(3))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.
- The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 31,000 µg/dscm or less and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; (§63.1206(b)(10)(viii)(B))
- If the kiln is not burning hazardous waste and the permittee is complying with the alternate mode of operation defined in the Comprehensive Performance Test Plan defined as follows:
“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate, and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”, the permittee is not subject to this permit condition, except for the monitoring and record keeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- The permittee must comply with the semivolatile metal (cadmium and lead) and low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. The permittee must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. (§63.1209(n))
 - (1) The permittee must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages. (§63.1209(n)(1))
 - (2) Maximum Feedrate of semivolatile and low volatile metals. (§63.1209(n)(2))
 - (a) The permittee must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium and chromium) as follows, except as provided by §63.1209(n)(2)(ii): (§63.1209(n)(2)(i))
 - (i) The permittee must establish a 12-hour rolling average limit for the feedrate of cadmium and lead, combined, in all feedstreams as the average of the test run averages; (§63.1209(n)(2)(i)(A))

- (ii) The permittee must establish a 12-hour rolling average limit for the feedrate of arsenic, beryllium and chromium, combined, in all feedstreams as the average of the test run averages; and (§63.1209(n)(2)(i)(B))
 - (iii) The permittee must establish a 12-hour rolling average limit for the feedrate of arsenic, beryllium, and chromium, combined, in all pumpable feedstreams as the average of the test run averages. Dual feedrate limits for both pumpable and total feedstreams are not required, however, if the permittee bases the total feedrate limit solely on the feedrate of pumpable feedstreams. (§63.1209(n)(2)(i)(C))
- (b) Feedrate extrapolation. (§63.1209(n)(2)(ii))
 - (i) The permittee may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the semivolatile metal and low volatile metal feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. (§63.1209(n)(2)(ii)(A))
 - (iii) The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: (§63.1209(n)(2)(ii)(B))
 - Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and (§63.1209(n)(2)(ii)(B)(1))
 - Whether the extrapolated feedrates the permittee requests are warranted considering historical metal feedrate data. (§63.1209(n)(2)(ii)(B)(2))
- (c) The Administrator will review the performance test results in making a finding of compliance required by §§63.6(f)(3) and 63.1206(b)(3) to ensure that the permittee has interpreted emission test results properly and that the extrapolation procedure is appropriate for the source. (§63.1209(n)(2)(ii)(C))
- (3) The permittee must establish operating parameter limits on the particulate matter control device as specified by §63.1209(m)(1). (§63.1209(n)(3))
- (4) The permittee must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. (§63.1209(n)(4))
- (5) Maximum flue gas flowrate or production rate. (§63.1209(n)(5))
 - (a) As an indicator of gas residence time in the control device, the permittee must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. (§63.1209(n)(5)(i))
 - (b) The permittee must comply with this limit on an hourly rolling average basis. (§63.1209(n)(5)(ii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee must use Method 29, provided in appendix A, part 60 of chapter 40, to determine compliance with the emission standard for cadmium and lead (combined). (§63.1208(b)(3))
- The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the responsibility of the permittee to ensure that the sampling and

analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the permittee must demonstrate that: (§63.1208(b)(8))

- (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
- (2) The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))

Monitoring:

- The permittee may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. (§63.1209(a)(5))
- The permittee shall comply with the comprehensive performance testing as specified in permit condition PW011.
- The permittee shall monitor the inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average; (§63.1209(n)(1))
- The permittee shall establish a 12-hour rolling average limit for the feedrate of semivolatile metals, combined in all feedstreams or the average of the test run averages; (§63.1209(n)(2)(i)(A))
- The permittee must regularly inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of §63.1209(m)(1)(iv)(A)(3). (§63.1209(m)(1)(iv)(C))
- The permittee shall establish a 12-hour rolling average limit for the feedrate of cadmium and lead, combined in all feedstreams or the average of the test run averages; (§63.1209(n)(4))
- The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average; (§63.1209(n)(5)(ii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. Conduct of monitoring – The provisions of §63.8(b) apply. (§63.1209(e))
- Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: (§63.1209(f))

CMS Monitoring

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) through (ii), the permittee must install and operate continuous emission monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))

- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1). Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2). Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
 - (3). Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - (1) Inlet temperature to the primary dry metals emissions control device; (§63.1209(n)(1))
 - (2) Feedrate for semivolatile metals, combined, in all feedstreams; (§63.1209(n)(2)(i)(A))
 - (3) The flue gas flowrate or production rate; (§63.1209(n)(5)(ii))
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on a 12 hour rolling average for the following:
 - (1) The feedrate of total chlorine and chloride in all feedstreams; (§63.1209(n)(4))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- The permittee shall maintain records of the calibration checks on the CMS equipment.
- The permittee must install, calibrate, operate and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of §63.1209(m)(1)(iv)(A)(1).

- The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor. (§63.1209(m)(1)(iv)(B))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- The permittee shall maintain records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-04

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Arsenic, Beryllium and Chromium (Low Volatility Metals)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain arsenic, beryllium and chromium in excess of 56 µg/dscm, combined emissions, corrected to 7 percent oxygen; (§63.1204(a)(4))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.

- The permittee must utilize a hazardous waste feedrate corresponding to an MTEC of 54,000 µg/dscm or less and use of a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; (§63.1206(b)(10)(viii)(C))
- If the kiln is not burning hazardous waste and the permittee is complying with the alternate mode of operation defined in the Comprehensive Performance Test Plan defined as follows:
“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”, the permittee is not subject to this permit condition, except for the monitoring and record keeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- The permittee must comply with the low volatile metal (arsenic, beryllium, and chromium) emission standards by establishing and complying with the following operating parameter limits. The permittee must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications: (§63.1209(n))
 - (1) The permittee must establish a limit on the maximum inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average basis as the average of the test run averages. (§63.1209(n)(1))
 - (2) Maximum Feedrate of semivolatile and low volatile metals. (§63.1209(n)(2))
 - (a) The permittee must establish feedrate limits for semivolatile metals (cadmium and lead) and low volatile metals (arsenic, beryllium and chromium) as follows, except as provided by §63.1209(n)(2)(ii): (§63.1209(n)(2)(i))
 - (i) The permittee must establish a 12-hour rolling average limit for the feedrate of cadmium and lead, combined, in all feedstreams as the average of the test run averages; (§63.1209(n)(2)(i)(A))
 - (ii) The permittee must establish a 12-hour rolling average limit for the feedrate of arsenic, beryllium and chromium, combined, in all feedstreams as the average of the test run averages; and (§63.1209(n)(2)(i)(B))
 - (iii) The permittee must establish a 12-hour rolling average limit for the feedrate of arsenic, beryllium, and chromium, combined, in all pumpable feedstreams as the average of the test run averages. Dual feedrate limits for both pumpable and total feedstreams are not required, however, if the permittee bases the total feedrate limit solely on the feedrate of pumpable feedstreams. (§63.1209(n)(2)(i)(C))
 - (b) Feedrate extrapolation. (§63.1209(n)(2)(ii))
 - (i) The permittee may request as part of the performance test plan under §§63.7(b) and (c) and §§63.1207(e) and (f) to use the semivolatile metal and low volatile metal feedrates and associated emission rates during the comprehensive performance test to extrapolate to higher allowable feedrate limits and emission rates. (§63.1209(n)(2)(ii)(A))
 - (ii) The extrapolation methodology will be reviewed and approved, as warranted, by the Administrator. The review will consider in particular whether: (§63.1209(n)(2)(ii)(B))
 - Performance test metal feedrates are appropriate (i.e., whether feedrates are at least at normal levels; depending on the heterogeneity of the waste, whether some level of spiking would be appropriate; and whether the physical form and species of spiked material is appropriate); and (§63.1209(n)(2)(ii)(B)(1))

- Whether the extrapolated feedrates the permittee requests are warranted considering historical metal feedrate data. (§63.1209(n)(2)(ii)(B)(2))
- (iii) The Administrator will review the performance test results in making a finding of compliance required by §§63.6(f)(3) and 63.1206(b)(3) to ensure that the permittee has interpreted emission test results properly and that the extrapolation procedure is appropriate for the source. (§63.1209(n)(2)(ii)(C))
- (3) The permittee must establish operating parameter limits on the particulate matter control device as specified by §63.1209(m)(1): (§63.1209(n)(3))
 - (a) The permittee must install, calibrate, operate and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of §63.1209(m)(1)(iv)(A)(1). The permittee must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor. (§63.1209(m)(1)(iv)(B))
 - (b) The permittee must regularly inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of §63.1209(m)(1)(iv)(A)(3). (§63.1209(m)(1)(iv)(C))
- (4) The permittee must establish a 12-hour rolling average limit for the feedrate of total chlorine and chloride in all feedstreams as the average of the test run averages. (§63.1209(n)(4))
- (5) Maximum flue gas flowrate or production rate: (§63.1209(n)(5))
 - (a) As an indicator of gas residence time in the control device, the permittee must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. (§63.1209(n)(5)(i))
 - (b) The permittee must comply with this limit on an hourly rolling average basis. (§63.1209(n)(5)(ii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee must use Method 29, provided in Appendix A, part 60 of chapter 40, to demonstrate compliance with the emission standard for arsenic, beryllium and chromium. (§63.1208(b)(4))
- The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the responsibility of the permittee to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the permittee must demonstrate that: (§63.1208(b)(8))
 - (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
 - (2) The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))

Monitoring:

- The permittee may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. (§63.1209(a)(5))
 - The permittee shall comply with the comprehensive performance testing as specified in permit condition PW011.
 - The permittee shall monitor the inlet temperature to the primary dry metals emissions control device (e.g., electrostatic precipitator, baghouse) on an hourly rolling average; (§63.1209(n)(1))
- The permittee shall monitor the feedrate of cadmium and lead, combined, in all feedstreams on a twelve (12)-hour rolling average. (§63.1209(n)(2))
- The permittee shall establish a 12-hour rolling average limit for the feedrate of low volatile metals, combined in all feedstreams or the average of the test run averages; (§63.1209(n)(2)(i)(B))
 - The permittee shall monitor the feedrate for low volatile metals, combined, in all pumpable feedstreams on a 12-hour rolling average; (§63.1209(n)(2)(i)(C))
 - Control device operating parameters. The permittee must establish operating parameter limits on the particulate matter control device as specified by §63.1209(m)(1): (§63.1209(n)(3))
 - The permittee must install, calibrate, operate and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of §63.1209(m)(1)(iv)(A)(1). The permittee must install, calibrate, and maintain the monitoring equipment in accordance with the equipment manufacturer's specifications. The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor. (§63.1209(m)(1)(iv)(B))
 - The permittee must regularly inspect the data recorded by the operating parameter monitoring system at a sufficient frequency to ensure the control device is operating properly. An excursion is determined to have occurred any time that the actual value of a selected operating parameter is less than the minimum operating limit (or, if applicable, greater than the maximum operating limit) established for the parameter in accordance with the requirements of §63.1209(m)(1)(iv)(A)(3). (§63.1209(m)(1)(iv)(C))
 - The permittee shall monitor the feedrate of total chlorine and chloride in all feedstreams on a 12-hour rolling average; (§63.1209(n)(4))
 - The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average; (§63.1209(n)(5)(ii))
 - If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. The permittee must begin calculating rolling averages anew (i.e., without considering previous recordings) when the permittee begins complying with the operating parameter limits for the alternative mode of operation. (§63.1209(q))
 - Conduct of monitoring. The provisions of §63.8(b) apply. (§63.1209(e))
 - Operation and maintenance of continuous monitoring systems. The provisions of §63.8(c) apply except: [§63.1209(f)]
 - (1) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); (§63.1209(f)(1))
 - (2) §§63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to hazardous waste burning cement kilns. (§63.1209(f)(3))

CMS Monitoring

Record Keeping:

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) through (ii), the permittee must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (a) Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))
- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average), respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
 - (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meets the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))
- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.

- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - (1) Inlet temperature to the primary dry metals emissions control device; (§63.1209(n)(1))
 - (2) The flue gas flowrate or production rate; (§63.1209(n)(5)(ii))
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on a 12 hour rolling average for the following:
 - (1) The feedrate of total chlorine and chloride in all feedstreams; (§63.1209(n)(4))
 - (2) Feedrate for semivolatile metals, combined, in all feedstreams; (§63.1209(n)(2)(i)(A))
 - (3) Feedrate for low volatile metals, combined, in all feedstreams; (§63.1209(n)(2)(i)(B))
 - (4) Feedrate for low volatile metals, combined, in all pumpable feedstreams; (§63.1209(n)(2)(i)(C))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- The permittee shall maintain records on the calibration checks of the CMS equipment.
- The permittee must install, calibrate, operate and maintain a monitoring device equipped with a recorder to measure the values for each operating parameter selected in accordance with the requirements of §63.1209(m)(1)(iv)(A)(1).
- The recorder must record the detector responses at least every 60 seconds, as required in the definition of continuous monitor. (§63.1209(m)(1)(iv)(B))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- The permittee shall maintain records on-site for the most recent sixty (60) months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-05

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Carbon Monoxide and Hydrocarbons

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain carbon monoxide and hydrocarbons, either (§63.1204(a)(5)(i)):
 - (1) Carbon monoxide in the by-pass duct or mid-kiln gas sampling system in excess of 100 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis and corrected to 7 percent oxygen. If the permittee elects to comply with this carbon monoxide standard rather than the hydrocarbon standard under §63.1204(a)(5)(i)(B), the permittee must also document that during the destruction and removal efficiency (DRE) test runs or their equivalent as provided by §63.1206(b)(7), hydrocarbons in the by-pass duct or mid-kiln gas sampling system do not exceed 10 parts per million by volume during those runs, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane, or (§63.1204(a)(5)(i)(A))
 - (2) Hydrocarbons in the by-pass duct or midkiln gas sampling system in excess of 10 parts per million by volume, over an hourly rolling average (monitored continuously with a continuous emissions monitoring system), dry basis, corrected to 7 percent oxygen, and reported as propane. (§63.1204(a)(5)(i)(B))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, you may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.
- If the kiln is not burning hazardous waste and the permittee is complying with the alternate mode of operation defined in the Comprehensive Performance Test Plan as follows:

“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”, the permittee is not subject to this permit condition, except for the monitoring and record keeping of the hazardous waste feed and the method of compliance.

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee may use applicable test methods in EPA Publication SW-846, as incorporated by reference in §63.1208(a), as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in §63.1208(b)(2) – (b)(6). (§63.1208(b)(7))

Monitoring:

- Carbon monoxide standard using continuous emissions monitoring system and document compliance with the hydrocarbon standard during the destruction and removal efficiency performance test or its equivalent. (§63.1206(b)(6))
 - (1) If a DRE test performed pursuant to 63.1207(c)(2) is acceptable as documentation of compliance with the DRE standard, the permittee may use the highest hourly rolling average hydrocarbon level achieved during the DRE test runs to document compliance with the hydrocarbon standard. An acceptable DRE test is any test for which the data and results are determined to meet quality assurance objectives (on a site-specific basis) such that the results adequately demonstrate compliance with the DRE standard.
 - (2) If during this acceptable DRE test, the permittee did not obtain hydrocarbon emissions data sufficient to document compliance with the hydrocarbon standard, the permittee must either: (§63.1206(b)(6)(ii))
 - (a) Perform, as part of the performance test, an “equivalent DRE test” to document compliance with the hydrocarbon standard. An equivalent DRE test is comprised of a minimum of three runs each with a minimum duration of one hour during which the permittee operates the combustor as close as reasonably possible to the operating parameter limits that the permittee established based on the initial DRE test. The permittee must use the highest hourly rolling average hydrocarbon emission level achieved during the equivalent DRE test to document compliance with the hydrocarbon standard; or (§63.1206(b)(6)(ii)(A))
 - (b) Perform a DRE test as part of the performance test. (§63.1206(b)(6)(ii)(B))
- CEMS - The permittee must use either a carbon monoxide or hydrocarbon CEMS to demonstrate and monitor compliance with the carbon monoxide and hydrocarbon standard under this subpart. The permittee must also use an oxygen CEMS to continuously correct the carbon monoxide or hydrocarbon levels to 7 percent oxygen. (§63.1209(a)(1)(i))
- CEMS - The permittee must install, calibrate, maintain and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, part 60 of chapter 40. (§63.1209(a)(2))
- CO CEMS - Except as provided by §63.1209(a)(3)(ii), if a carbon monoxide CEMS detects a response that results in a one-minute average at or above the 3,000 ppmv span level required by Performance Specification 4B in Appendix B, part 60 of chapter 40, the one-minute average must be recorded as 10,000 ppmv. The one-minute 10,000 ppmv value must be used for calculating the hourly rolling average carbon monoxide level. (§63.1209(a)(3)(i))
- Carbon monoxide CEMS that use a span value of 10,000 ppmv when one-minute carbon monoxide levels are equal to or exceed 3,000 ppmv are not subject to §63.1209(a)(3)(i). Carbon monoxide CEMS that use a span value of 10,000 are subject to the same CEMS performance and equipment specifications when operating in the ranges of 3,000 ppmv to 10,000 ppmv that are provided by Performance Specification 4B for other carbon monoxide CEMS, except: (§63.1209(a)(3)(ii))
 - (1) Calibration drift must be less than 300 ppmv; and (§63.1209(a)(3)(ii)(A))
 - (2) Calibration error must be less than 500 ppmv. (§63.1209(a)(3)(ii)(B))
- Hydrocarbon CEMS – Except as provided by §63.1209(a)(4)(ii), if a hydrocarbon CEMS detects a response that results in a one-minute average at or above the 100 ppmv span level required by Performance Specification 8A in Appendix B, part 60 of chapter 40, the one-minute average must be recorded as 500 ppmv. The one-minute 500 ppmv value must be used for calculating the hourly rolling average HC level. (§63.1209(a)(4)(i))
- Hydrocarbon CEMS that use a span value of 500 ppmv when one-minute hydrocarbon levels are equal to or exceed 100 ppmv are not subject to §63.1209(a)(4)(i). Hydrocarbon CEMS that use a span value of 500 ppmv are subject to the same CEMS performance and equipment specifications when operating in the range

of 100 ppmv to 500 ppmv that are provided by Performance Specification 8A for other hydrocarbon CEMS, except: (§63.1209(a)(4)(ii))

- (1) The zero and high-level calibration gas must have a hydrocarbon level of between 0 and 100 ppmv, and between 250 and 450 ppmv, respectively; (§63.1209(a)(4)(ii)(A))
 - (2) The strip chart recorder, computer, or digital recorder must be capable of recording all readings within the CEM measurement range and must have a resolution of 2.5 ppmv; (§63.1209(a)(4)(ii)(B))
 - (3) The CEMS calibration must not differ by more than ± 15 ppmv after each 24-hour period of the seven day test at both zero and high levels; (§63.1209(a)(4)(ii)(C))
 - (4) The calibration error must be no greater than 25 ppmv; and (§63.1209(a)(4)(ii)(D))
 - (5) The zero level, mid-level, and high-level calibration gas used to determine calibration error must have a hydrocarbon level of 0-200 ppmv, 150-200 ppmv, and 350-400 ppmv, respectively. (§63.1209(a)(4)(ii)(E))
- The requirements of §§63.8(d) (Quality control program) and (e) (Performance evaluation of continuous monitoring systems) apply, except that the permittee must conduct performance evaluations of components of the CMS under the frequency and procedures (for example, submittal of performance evaluation test plan for review and approval) applicable to performance tests as provided by §63.1207. (§63.1209(d)(1))
 - The permittee must comply with the quality assurance procedures for CEMS prescribed in Appendix to Subpart EEE of Part 63 – Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors. (§63.1209(d)(2))
 - The permittee must comply with the quality assurance procedures for CEMS prescribed in Appendix to Subpart EEE of Part 63 – Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors. (§63.1209(d)(2))
 - Conduct of monitoring – The provisions of §63.8(b) apply. (§63.1209(e))
 - Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: (§63.1209(f))
 - The performance specifications for carbon monoxide, hydrocarbon and oxygen CEMSs in subpart B, part 60 of chapter 40 requires detectors to measure the sample concentration at least once every 15 seconds for calculating an average emission rate once every 60 seconds shall be complied with instead of §63.8(c)(4)(ii); and (§63.1209(f)(2))
 - Sections 63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to owners and operators of hazardous waste burning cement kilns. (§63.1209(f)(3))

Calculation of Rolling Averages:

- The carbon monoxide or hydrocarbon CEMS must begin recording one-minute average values by 12:01 am and hourly rolling average values by 1:01 am, when 60 one-minute values will be available for calculating the initial hourly rolling average for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute and hourly rolling average values 60 seconds and 60 minutes (when 60 one-minute values will be available for calculating the initial rolling average), respectively, from the time at which compliance begins. (§63.1209(a)(6)(i))
- The permittee must ignore periods of time when one-minute values are not available for calculating the hourly rolling average. When one-minute values become available again, the first one-minute value is added to the previous 59 values to calculate the hourly rolling average. (§63.1209(a)(6)(ii))
- Except as provided by paragraph §63.1209(a)(6)(iii)(B) of this section, the permittee must continue monitoring carbon monoxide and hydrocarbons when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if the emission levels exceed the standard. (§63.1209(a)(6)(iii)(A))

- The permittee is not subject to the CEMS requirement of this subpart during periods of time the permittee meets the requirement of §63.1206(b)(1)(ii) (compliance with emission standards for nonhazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(a)(6)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the CEMs. The permittee shall maintain records on the following concentrations in 15 second intervals to calculate an average emission rate once every 60 seconds: (§63.1209(f)(2))
 - (1) Carbon Monoxide;
 - (2) Hydrocarbon;
 - (3) Oxygen
- The permittee shall maintain records of all calibration records obtained during compliance with the quality assurance procedures provide in the appendix to this subpart and Performance Specifications 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, part 60 of chapter 40. (§63.1209(a)(2))
- The permittee shall maintain records of the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 4B (carbon monoxide and oxygen), and 8A (hydrocarbons) in Appendix B, part 60 of chapter 40. (§63.1209(a)(2))
- The permittee shall maintain records of the quality assurance procedures for CEMS prescribed in Appendix to Subpart EEE of Part 63 – Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors. (§63.1209(d)(2))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(g))

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-06

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Hydrochloric Acid and Chlorine Gas

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain hydrochloric acid and chlorine gas in excess of 130 parts per million by volume, combined emissions, expressed as hydrochloric acid equivalents, dry basis, corrected to seven percent (7%) oxygen. (§63.1204(a)(6))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.
- The permittee must utilize a hazardous waste chlorine feedrate corresponding to an MTEC of 720,000 µg/dscm or less; (§63.1206(b)(10)(viii)(D))
- If the kiln is not burning hazardous waste and the permittee is complying with the alternate mode of operation defined in the Comprehensive Performance Test Plan as follows:
“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”, the permittee is not subject to this permit condition, except for the monitoring and record keeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- The permittee must comply with the hydrogen chloride and chlorine gas emissions standard by establishing and complying with the following operating parameter limits. The permittee must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. (§63.1209(o))
 - (1) The permittee must establish a 12-hour rolling average limit for the total feedrate of chlorine (organic and inorganic) in all feedstreams as the average of the test run averages. (§63.1209(o)(1))
 - (2) Maximum flue gas flowrate or production rate: (§63.1209(o)(2))
 - (a) As an indicator of gas residence time in the control device, the permittee must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. (§63.1209(o)(2)(i))
 - (b) The permittee must comply with this limit on an hourly rolling average basis; (§63.1209(o)(2)(ii))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee

changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation.

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee may use Methods 26A, 320 or 321, provided in Appendix A, part 60 of chapter 40, to demonstrate compliance with the emission standard for hydrochloric acid and chlorine gas (combined). The permittee may use Methods 320 or 321 to make major source determinations under §63.9(b)(2)(v). (§63.1208(b)(5))
- The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the responsibility of the permittee to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the permittee must demonstrate that: (§63.1208(b)(8))
 - (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
 - (2) The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))

Monitoring:

- The permittee may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. (§63.1209(a)(5))
- The permittee shall comply with the comprehensive performance testing as specified in permit condition PW011.
- The permittee shall monitor the feedrate of total chlorine and chloride (organic and inorganic) in all feedstreams on an 12- hour rolling average; (§63.1209(o)(1))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must begin calculating rolling averages anew (i.e., without considering previous recordings) when the permittee begins complying with the operating parameter limits for the alternative mode of operation. (§63.1209(q))
- Conduct of monitoring. The provisions of §63.8(b) apply. (§63.1209(e))
- Operation and maintenance of continuous monitoring systems. The provisions of §63.8(c) apply except: (§63.1209(f))
 - (1) §63.8(c)(3). The requirements of §63.1211(c), that requires CMSs to be installed, calibrated, and operational on the compliance date, shall be complied with instead of §63.8(c)(3); (§63.1209(f)(1))§§63.8(c)(4)(i), (c)(5), and (c)(7)(i)(C) pertaining to COMS apply only to hazardous waste burning cement kilns. (§63.1209(f)(3))

CMS Monitoring

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) through (ii), the permittee must install and operate continuous emission monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
- Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than once per

year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))

- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
 - (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - (1) The flue gas flowrate or production rate; (§63.1209(o)(2)(ii))
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on a 12-hour rolling average for the following:
 - (1) The feedrate total chlorine and chloride (organic and inorganic) in all feedstreams; (§63.1209(o)(1))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- The permittee shall maintain records on the calibration checks of the CMS equipment.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must begin calculating rolling averages anew (i.e., without

considering previous recordings) when the permittee begins complying with the operating parameter limits for the alternative mode of operation. (§63.1209(q))

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-07

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Particulate Matter (NOTE: When the permittee complies with the particulate matter requirements under §63.1207(a)(7), the permittee is exempt from the New Source Performance Standard for particulate matter and opacity under §60.60.)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain particulate matter in excess of 0.15 kg/Mg dry feed. (§63.1204(a)(7))
- The permittee must use suitable methods to determine the kiln raw material feedrate. (§63.1204(a)(7)(i))
- Except as provided in §63.1204(a)(7)(iii), the permittee must compute the particulate matter emission rate, E from the following equation:

$$E = (C_s \times Q_{sd}) / P$$

Where:

E = emission rate of particulate matter, kg/Mg of kiln raw material feed;

C_s = concentration of particulate matter, kg/dscm;

Q_{sd} = volumetric flowrate of effluent gas, dscm/hr; and,

P = total kiln raw material feed (dry basis), Mg/hr (§63.1204(a)(7)(ii))

- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))

- PM & Opacity – CEMS correlation tests – Any particulate matter and opacity standards of parts 60, 61, 63, 264, 265 and 266 of this chapter (i.e., any title 40 particulate or opacity standards) applicable to a hazardous waste combustor do not apply while the permittee conducts particulate matter continuous emissions monitoring system (CEMS) correlation tests under the conditions of §63.1206(b)(8)(iii) through (vii). (§63.1206(b)(8)(i))
- PM & Opacity – CEMS correlation tests - Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any particulate matter and opacity standards of parts 60, 61, 63, 264, 265 and 266 of this chapter (i.e., any title 40 particulate or opacity standards) do not apply while the permittee conducts particulate matter CEMS correlation tests under the conditions of §63.1206(b)(8)(iii) through (vii). (§63.1206(b)(8)(ii))
- For the provisions of this section to apply, the permittee must: (§63.1206(b)(8)(iii))
 - (1) Develop a particulate matter CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§63.1207(e) and (f): (§63.1206(b)(8)(iii)(A))
 - (a) Number of test conditions and number of runs for each test condition; (§63.1206(b)(8)(iii)(A)(1))
 - (b) Target particulate matter emission level for each test condition; (§63.1206(b)(8)(iii)(A)(2))
 - (c) How the permittee plans to modify operations to attain the desired particulate matter emission levels; and (§63.1206(b)(8)(iii)(A)(3))
 - (d) Anticipated normal particulate matter emission levels; and (§63.1206(b)(8)(iii)(A)(4))
- The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions, unless more time is approved by the Administrator. (§63.1206(b)(8)(v))
- The permittee must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed. (§63.1206(b)(8)(vii))

Alternate Standard Provision:

- If the permittee selects the alternate emission standard provision for semivolatile metals and/or low volatile metals, the permittee must utilize a particulate matter control device that achieves particulate matter emissions of 0.15 kg/Mg dry feed or less; (§63.1206(b)(10)(viii)(B and/or C))
- If the kiln is not burning hazardous waste, the permittee may comply with the alternate mode of operation defined in the Comprehensive Performance Test Plan defined as follows:

“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”.

Operating Parameters:

- The permittee must comply with the particulate matter emission standard by establishing and complying with the following operating parameter limits. The permittee must base the limits on operations during the comprehensive performance test, unless the limits are based on manufacturer specifications. (§63.1209(m))
 - (1) Control Device Operating Parameter Limits (OPLs) (§63.1209(m)(1)(iii))
 - (2) Maximum flue gas flowrate or production rate: (§63.1209(m)(2))
 - (a) As an indicator of gas residence time in the control device, the permittee must establish a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the

permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. (§63.1209(m)(2)(i))

- (b) The permittee must comply with this limit on an hourly rolling average basis:
(§63.1209(m)(2)(ii))

- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee must use Methods 5 or 5I, provided in Appendix A, part 60 of chapter 40, to demonstrate compliance with the emission standard for particulate matter. (§63.1208(b)(6))
- The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the responsibility of the permittee to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the permittee must demonstrate that: (§63.1208(b)(8))
 - (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
 - (2) The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))

Monitoring:

- The stack sampling team must be on-site and prepared to perform correlation testing no later than 24 hours after the permittee modifies operations to attain the desired particulate matter emissions concentrations, unless the permittee documents in the correlation test plan that a longer period of conditioning is appropriate. (§63.1206(b)(8)(vi))
- CEMS - The permittee must install, calibrate, maintain and operate a particulate matter CEMS to demonstrate and monitor compliance with the particulate matter standards under this subpart. However, compliance with the requirements in their section to install, calibrate, maintain and operate the PM CEMS is not required until such time that the Agency promulgates all performance specifications and operational requirements applicable to PM CEMS. (§63.1209(a)(1)(iii))
- The permittee may petition the Administrator to use CEMS for compliance monitoring for particulate matter, mercury, semivolatile metals, low volatile metals, and hydrochloric acid/chlorine gas under §63.8(f) in lieu of compliance with the corresponding operating parameter limits under §63.1209. (§63.1209(a)(5))
- The permittee must comply with the quality assurance procedures for CEMS prescribed in Appendix to Subpart EEE of Part 63 – Quality Assurance Procedures for Continuous Emissions Monitors Used for Hazardous Waste Combustors. (§63.1209(d)(2))
- The permittee shall monitor the flue gas flowrate or production rate on an hourly rolling average; (§63.1209(m)(2))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

CMS Monitoring

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) through (ii), the permittee must install and operate continuous emission monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))
- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m. (e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hour rolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))
 - (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:

- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- The permittee shall maintain records of the CEMS correlation test plan that includes the following information. This test plan may be included as part of the comprehensive performance test plan required under §§63.1207(e) and (f): (§63.1206(b)(8)(iii)(A))
 - (1) Number of test conditions and number of runs for each test condition; (§63.1206(b)(8)(iii)(A)(1))
 - (2) Target particulate matter emission level for each test condition; (§63.1206(b)(8)(iii)(A)(2))
 - (3) How the permittee plans to modify operations to attain the desired particulate matter emission levels; and (§63.1206(b)(8)(iii)(A)(3))
 - (4) Anticipated normal particulate matter emission levels. (§63.1206(b)(8)(iii)(A)(4))
- The permittee shall maintain records of the CEMS correlation test plan;
- The permittee shall maintain records of the calibration checks on the CMS equipment.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- The permittee shall maintain records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- Submit the particulate matter CEMS correlation test plan to the Administrator for approval at least 90 calendar days before the correlation test is scheduled to be conducted. (§63.1206(b)(8)(iii)(B))
- The Administrator will review and approve/disapprove the correlation test plan under the procedures for review and approval of the site-specific test plan provided by §63.7(c)(3)(i) and (iii). If the Administrator fails to approve or disapprove the correlation test plan within the time period specified by §63.7(c)(3)(i), the plan is considered approved, unless the Administrator has requested additional information. (§63.1206(b)(8)(iv))
- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-08

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

40 CFR Part 63, Subpart EEE

National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors – Opacity (NOTE: When the permittee complies with the particulate matter requirements under §63.1207(a)(7), the permittee is exempt from the New Source Performance Standard for particulate matter and opacity under §60.60.)

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee must not discharge or cause combustion gases to be emitted into the atmosphere that contain an opacity greater than 20%. (§63.1204(a)(7))
- The emission limits provided by §63.1204(a) are presented with two significant figures. Although the permittee must perform intermediate calculations using at least three significant figures, the permittee may round the resultant emission levels to two significant figures to document compliance. (§63.1204(f))
- PM & Opacity – CEMS correlation tests – Any particulate matter and opacity standards of parts 60, 61, 63, 264, 265 and 266 of this chapter (i.e., any title 40 particulate or opacity standards) applicable to a hazardous waste combustor do not apply while the permittee conduct particulate matter continuous emissions monitoring system (CEMS) correlation tests under the conditions of §63.1206(b)(8)(iii) through (vii). (§63.1206(b)(8)(i))
- PM & Opacity – CEMS correlation tests - Any permit or other emissions or operating parameter limits or conditions, including any limitation on workplace practices, that are applicable to hazardous waste combustors to ensure compliance with any particulate matter and opacity standards of parts 60, 61, 63, 264, 265 and 266 of this chapter (i.e., any title 40 particulate or opacity standards) do not apply while the permittee conducts particulate matter CEMS correlation tests under the conditions of §63.1206(b)(8)(iii) through (vii). (§63.1206(b)(8)(ii))
- The particulate matter and opacity standards and associated operating limits and conditions will not be waived for more than 96 hours, in the aggregate, for a correlation test, including all runs of all test conditions. (§63.1206(b)(8)(v))
- The permittee must return to operating conditions indicative of compliance with the applicable particulate matter and opacity standards as soon as possible after correlation testing is completed. (§63.1206(b)(8)(vii))

Alternate Standard Provision:

- If the kiln is not burning hazardous waste, the permittee may comply with the alternate mode of operation defined in the Comprehensive Performance Test Plan defined as follows:
“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”.

Test Methods:

- The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))
- If the permittee determines compliance with the opacity standard under the monitoring requirements of §63.1209(a)(1)(iv) and (a)(1)(v), the permittee must use Method 9, provided in Appendix A, part 60 of chapter 40. (§63.1208(b)(9))

Monitoring:

- COMS – For cement kilns, except as provided by §63.1209(a)(1)(iv) and (a)(1)(v), the permittee must use a COMS to demonstrate and monitor compliance with the opacity standard under §§63.1204(a)(7) and (b)(7) at each point where emissions are vented from these affected sources including the bypass stack of a preheater or preheater/precalciner kiln with dual stacks. (§63.1209(a)(1)(ii))
 - (1) The permittee must maintain and operate each COMS in accordance with the requirements of §63.8(c) except for the requirements under §63.8(c)(3). The requirements of §63.1211(d) shall be complied with instead of §63.8(c)(3); and (§63.1209(a)(1)(ii)(A))
 - (2) Compliance is based on six-minute block average. (§63.1209(a)(1)(ii)(B))
- COMS - The permittee must install, calibrate, maintain and continuously operate the CEMS and COMS in compliance with the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 1 (opacity) in Appendix B, part 60 of chapter 40. (§63.1209(a)(2))
- Conduct of monitoring – The provisions of §63.8(b) apply. (§63.1209(e))
- Operation and Maintenance of Continuous Monitoring Systems – The provisions of §63.8(c) apply except: (§63.1209(f))
- Sections 63.8(c)(4)(i), (c)(5) and (c)(7)(i)(C) pertaining to COMS apply only to owners and operators of hazardous waste burning cement kilns. (§63.1209(f)(3))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the COMs; (§63.1209(a)(1)(ii)) or
- The permittee shall maintain records of all observation results (see Attachment B), noting:
 - (1) Whether any air emissions (except for water vapor) were visible from the emission units,
 - (2) All emission units from which visible emissions occurred, and
 - (3) Whether the visible emissions were normal for the process.
- The permittee shall maintain records of any Method 9 test performed in accordance with this permit condition.
- The permittee shall maintain records of any equipment malfunctions.
- The permittee shall maintain records of all calibration records obtained during compliance with the quality assurance procedures provide in the Appendix to this subpart and Performance Specifications 1 (opacity) in Appendix B, part 60 of chapter 40. (§63.1209(a)(2))
- The permittee shall maintain records of the quality assurance procedures provided in the appendix to this subpart and Performance Specifications 1 (opacity) in Appendix B, part 60 of chapter 40. (§63.1209(a)(2))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

Record Keeping /Reporting for Alternate Standard Provision:

- The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-09

10 CSR 10-6.075

Maximum Achievable Control Technology Regulations

40 CFR Part 63, Subpart EEE

**National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors –
Destruction and Removal Efficiency (DRE) – Principal Organic Hazardous Constituent**

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- Except as provided in §63.1204(c)(2), the permittee must achieve a destruction and removal efficiency (DRE) of 99.99% for each principle organic hazardous constituent (POHC) designated under §63.1204(c)(3). The permittee must calculate DRE for each POHC from the following equation:
$$DRE = [1 - (W_{out}/W_{in})] \times 100\%$$

Where:
 W_{in} = mass feedrate of one POHC in a waste feedstream; and
 W_{out} = mass emission rate of the same POHC present in exhaust emissions prior to release to the atmosphere. (63.1204(c)(1))
- If the permittee burns the dioxin-listed hazardous wastes FO20, FO21, FO22, FO23, FO26 or FO27 (see §261.31 of this chapter), the permittee must achieve a DRE of 99.9999% for each POHC that the permittee designates under §63.1204(c)(3). The permittee must demonstrate this DRE performance on POHCs that are more difficult to incinerate than tetra-, penta-, and hexachlorodibenzo-p-dioxins and dibenzofurans. The permittee must use the equation in §63.1204(c)(1) to calculate DRE for each POHC. In addition, the permittee must notify the Administrator of the intent to incinerate hazardous wastes FO20, FO21, FO22, FO23, FO26 or FO27. (§63.1204(c)(2))
- The permittee must treat the POHCs in the waste feed that are specified under §63.1204(c)(3)(ii) to the extent required by §63.1204(c)(1) and §63.1204(c)(2). (§63.1204(c)(3)(i))
- The permittee must specify one or more POHCs from the list of hazardous air pollutants established by 42 U.S.C. 7412(b)(1), excluding caprolactam (CAS number 105602) as provided by §63.60, for each waste to be burned. The permittee must base this specification on the degree of difficulty of incineration of the

organic constituents in the waste and on their concentration or mass in the waste feed, considering the results of waste analyses or other data and information. (§63.1204(c)(3)(ii))

Alternate Standard Provision:

- To utilize this provision as specified in §63.1206(b)(10), please refer to permit condition PW015.
- If the kiln is not burning hazardous waste and the permittee is complying with the alternate mode of operation defined in the Comprehensive Performance Test Plan defined as follows:
“Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect.”, the permittee is not subject to this permit condition, except for the monitoring and record keeping of the hazardous waste feed and the method of compliance.

Operating Parameters:

- To remain in compliance with the DRE standard, the permittee must establish operating limits during the comprehensive performance test (or during a previous DRE test under provisions of §63.1206(b)(7)) for the following parameters, unless the limits are based on manufacturer specifications and comply with those limits at all times that hazardous waste remains in the combustion chamber (i.e., the hazardous waste residence time has not transpired since the hazardous waste feed cutoff system was activated): (§63.1209(j))
 - (1) Minimum combustion chamber temperature: (§63.1209(j)(1))
 - (a) The permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee must document the temperature measurement location in the test plan the permittee submits under §63.1207(e); (§63.1209(j)(1)(i))
 - (b) The permittee must establish a minimum hourly rolling average limit as the average of the test run averages; (§63.1209(j)(1)(ii))
 - (2) Maximum flue gas flowrate or production rate: (§63.1209(j)(2))
 - (a) As an indicator of gas residence time in the control device the permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the permittee documents in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run; (§63.1209(j)(2)(i))
 - (b) The permittee must comply with this limit on an hourly rolling average basis; (§63.1209(j)(2)(ii))
 - (3) Maximum hazardous waste feedrate: (§63.1209(j)(3))
 - (a) The permittee must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed; (§63.1209(j)(3)(i))
 - (b) The permittee must establish the limits as the average of the maximum hourly rolling averages for each run. (§63.1209(j)(3)(ii))
 - (c) The permittee must comply with the feedrate limit(s) on a hourly rolling average basis; (§63.1209(j)(3)(iii))
 - (4) The permittee must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. (§63.1209(j)(4))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee

changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

Test Methods:

The permittee must use the following test methods to determine compliance with the emission standards: (§63.1208(b))

- The permittee may use applicable test methods in EPA Publication SW-846, as incorporated by reference in §63.1208(a), as necessary to demonstrate compliance with requirements of this subpart, except as otherwise specified in §63.1208(b)(2) – (b)(6). (§63.1208(b)(7))
- The permittee may use any reliable analytical method to determine feedstream concentrations of metals, chlorine and other constituents. It is the responsibility of the permittee to ensure that the sampling and analysis procedures are unbiased, precise, and that the results are representative of the feedstream. For each feedstream, the permittee must demonstrate that: (§63.1208(b)(8))
 - (1) Each analyte is not present above the reported level at the 80% upper confidence limit around the mean; and (§63.1208(b)(8)(i))
 - (2) The analysis could have detected the presence of the constituent at or below the reported level at the 80% upper confidence limit around the mean. (See Guidance for Data Quality Assessment – Practical Methods for Data Analysis, EPA QA/G-9, January 1998, EPA/600/R-96/084). (§63.1208(b)(8)(ii))

Monitoring:

- Except as provided in §63.1206(b)(7)(ii) and (b)(7)(iii), The permittee: (§63.1206(b)(7)(i))
 - (1) Must document compliance with the DRE standard under §§63.1203 through 63.1205 only once provided that the permittee does not modify the source after the DRE test in a manner that could affect the ability of the source to achieve the DRE standard; and (§63.1206(b)(7)(i)(A))
 - (2) May use any DRE test data that documents that the source achieves the required level of DRE provided. (§63.1206(b)(7)(i)(B))
 - (a) The permittee had not modified the design or operation or its source in a manner that could affect the ability of the source to achieve DRE standard since the DRE was performed; and, (§63.1206(b)(7)(i)(B)(1))
 - (b) The DRE test data meet quality assurance objectives determined on a site-specific basis. (§63.1206(b)(7)(i)(B)(2))
- For sources that feed hazardous waste at a location in the combustion system other than the normal flame zone, the permittee must demonstrate compliance with the DRE standard during each comprehensive performance test. (§63.1206(b)(7)(ii))
- For sources that do not use DRE previous testing to document conformance with the DRE standard pursuant to Sec. 63.1207(c)(2), the permittee must perform DRE testing during the initial comprehensive performance test. (§63.1206(b)(7)(iii))
- Minimum combustion chamber temperature. (§63.1209(j)(1))
 - (1) The permittee must measure the temperature of each combustion chamber at a location that best represents, as practicable, the bulk gas temperature in the combustion zone. The permittee must document the temperature measurement location in the test plan the permittee submit under § 63.1207(e); (§63.1209(j)(1)(i))
 - (2) The permittee must establish a minimum hourly rolling average limit as the average of the test run averages; (§63.1209(j)(1)(ii))
- Maximum flue gas flowrate or production rate. (§63.1209(j)(2))
 - (1) As an indicator of gas residence time in the control device, permittee must establish and comply with a limit on the maximum flue gas flowrate, the maximum production rate, or another parameter that the permittee document in the site-specific test plan as an appropriate surrogate for gas residence time, as the average of the maximum hourly rolling averages for each run. (§63.1209(j)(2)(i))

- (2) Permittee must comply with this limit on a hourly rolling average basis; (§63.1209(j)(2)(ii))
- Maximum hazardous waste feedrate. (§63.1209(j)(3))
 - (1) The permittee must establish limits on the maximum pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrate for each location where hazardous waste is fed. (§63.1209(j)(3)(i))
 - (2) The permittee must establish the limits as the average of the maximum hourly rolling averages for each run. (§63.1209(j)(3)(ii))
 - (3) The permittee must comply with the feedrate limit(s) on a hourly rolling average basis; (§63.1209(j)(1)(iii))
- Operation of waste firing system. The permittee must specify operating parameters and limits to ensure that good operation of each hazardous waste firing system is maintained. (§63.1209(j)(4))
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))

CMS Monitoring

- The permittee must use CMS (e.g., thermocouples, pressure transducers, and flow meters) to document compliance with the applicable operating parameter limits under this section. (§63.1209(b)(1))
- Except as specified in §63.1209(b)(2)(i) through (ii), the permittee must install and operate continuous monitoring systems other than CEMS in conformance with §63.8(c)(3) that requires the permittee, at a minimum, to comply with the manufacturer's written specifications or recommendations for installation, operation and calibration of the system: (§63.1209(b)(2))
 - (1) Calibration of a thermocouples and pyrometers. The calibration of thermocouple must be verified at a frequency and in a manner consistent with manufacturers specifications, but not less frequent than once per year. The permittee must operate and maintain optical pyrometers in accordance with manufacturer specifications unless otherwise approved by the Administrator. The permittee must calibrate optical pyrometers in accordance with the frequency and procedures recommended by the manufacturer, but not less frequent than once per year, unless otherwise approved by the Administrator. And, (§63.1209(b)(2)(i))
- CMS must sample the regulated parameter without interruption, and evaluate the detector response at least once each 15 seconds and compute and record the average values at least every 60 seconds. (§63.1209(b)(3))
- The span of the non-CEMS CMS detector must not be exceeded. The permittee must interlock the span limits into the automatic waste feed cutoff system required by §63.1206(c)(3). (§63.1209(b)(4))
- Calculation of Rolling Averages: (§63.1209(b)(5))
 - (1) Calculation of rolling averages initially. Continuous monitoring systems must begin recording one-minute average values by 12:01 a.m., hourly rolling average values by 1:01 a.m. (e.g. when 60 one-minute values will be available for calculating the initial hourly rolling average), and twelve-hour rolling averages by 12:01 p.m.(e.g., when 720 one-minute averages are available to calculate a 12-hour rolling average), for those sources that come into compliance on the regulatory compliance date. Sources that elect to come into compliance before the regulatory compliance date must begin recording one-minute, hourly rolling average, and 12-hourrolling average values within 60 seconds, 60 minutes (when 60 one-minute values will be available for calculating the initial hourly rolling average), and 720 minutes (when 720 one-minute values will be available for calculating the initial 12-hour hourly rolling average) respectively, from the time at which compliance begins. (§63.1209(b)(5)(i))
 - (2) Calculation of rolling averages upon intermittent operations. The permittee must ignore periods of time when one-minute values are not available for calculating the rolling averages. When one-minute

values become available again, the first one-minute value is added to the previous one-minute values to calculate rolling average. (§63.1209(b)(5)(ii))

- (3) Calculation of rolling averages when the hazardous waste feed is cutoff. (§63.1209(b)(5)(iii))
 - (a) Hazardous Waste Feed is Cutoff – Except as provided by §63.1209(b)(5)(iii)(B), the permittee must continue to monitor operating parameter limits with a CMS when the hazardous waste feed is cutoff if the source is operating. The permittee must not resume feeding hazardous waste if an operating parameter exceeds its limit. (§63.1209(b)(5)(iii)(A))
 - (b) The permittee is not subject to the CMS requirements during periods of time the permittee meet the requirements of §63.1206(b)(1)(ii) (compliance with emissions standards for non hazardous waste burning sources when the permittee is not burning hazardous waste). (§63.1209(b)(5)(iii)(B))

Record Keeping:

- The permittee shall comply with the comprehensive performance testing record keeping requirements as stated in permit condition PW011.
- The permittee shall maintain records of the data recorded by the continuous monitoring systems. The permittee shall maintain records on an hourly rolling average for the following:
 - (1) The temperature in each combustion chamber; (§63.1209(j)(1))
 - (2) The flue gas flowrate or production rate; (§63.1209(j)(2))
 - (3) The pumpable and total (i.e., pumpable and nonpumpable) hazardous waste feedrates; (§63.1209(j)(3))
- The permittee shall maintain records on the key parameters for the hazardous waste firing system; (§63.1209(j)(4))
- The permittee shall maintain records of the comprehensive performance test plans.
- The permittee shall maintain records of the comprehensive performance test results.
- If the permittee operates under different modes of operation, the permittee must establish operating parameter limits for each mode. The permittee must document in the operating record when the permittee changes a mode of operation and begins complying with the operating parameter limits for an alternative mode of operation. (§63.1209(q))
- The permittee shall maintain records on-site for the most recent 60 months and shall immediately make such records available to any Missouri Department of Natural Resources personnel upon verbal request

Record Keeping /Reporting for Alternate Standard Provision:

The permittee shall create and maintain a log indicating whether or not hazardous waste is being fed to the kiln and whether the installation is complying with the requirements of 40 CFR 63, Subpart EEE or Alternate Standard Provisions. Attachment G contains a log including these record keeping requirements. This log or an equivalent created by the permittee, must be used to certify compliance with this requirement. These records shall be made available to either the Director upon written request or Department inspection personnel upon verbal request

Reporting:

- The permittee shall comply with the comprehensive performance testing reporting requirements as stated in permit condition PW011.
- Excessive emissions and continuous monitoring system performance report and summary report as specified in permit condition PW005.
- The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of any of the terms imposed by this regulation, and, to the extent the permittee seeks to raise an affirmative defense to a possible exceedance, any malfunction which could possibly cause an exceedance of this regulation.

Permit Condition EU0010-10

10 CSR 10-6.260

Restriction of Emission of Sulfur Compounds

Emission Limitation:

- Emissions from any existing or source operation shall not contain more than two thousand parts per million by volume (2000 ppmv) of sulfur dioxide.
- Emissions from any existing or source operation shall not contain more than seventy milligrams (70 mg) per cubic meter of sulfuric acid or sulfur trioxide or any combination of those gases averaged on any consecutive three hour time period.
- No person shall cause or permit the emission of sulfur compounds from any source, which causes or contributes to concentrations exceeding those specified in 10 CSR 10-6.010 Ambient Air Quality Standards.

Record Keeping:

The installation shall maintain records of fuel usage and of the sulfur content of fuel. All records shall be maintained for five years. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedance of 10 CSR 10-6.260 demonstrated by the appropriate record keeping forms.

10 CSR 10-6.260(4) is a state-only requirement

Permit Condition EU0445-01

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

10 CSR 10-6.060

Construction Permits Required

Construction Permit Number 1086-004D

Emission Limitation:

It shall be a condition of this permit that Continental Cement, henceforth referred to as Continental, comply with all of the conditions contained within its permit number 0686-002A for storage of the hazardous waste fuels. (Special Condition Number 1)

It shall be a condition of this permit that Continental will introduce into the cement kiln waste fuels that contain amounts of lead, beryllium and mercury such that the go-day hourly rolling average feed rate of these metals from the burning of hazardous waste fuels yields a go-day hourly average emission rate lower than the allowable emission level as defined in the table below. The emission rate shall be calculated using emission factors as defined in the table below and the 90day hourly average input rate for each metal in the hazardous waste fuel. A sample calculation and comparison are provided following the table below. A comparison of the allowable average emissions rate with the 90-day hourly average emission rate will be performed to insure that the go-day hourly average emission rates are less than the allowable emission rates while burning hazardous waste fuel. Continental shall maintain on-site waste analysis and waste fuel flow rate records, as well as records of calculated emission rates, go-day hourly rolling average feed rates and de minimis comparisons for these three metals. (Special Condition Number 2)

FACTORS TO BE USED IN CALCULATION OF
90-DAY HOURLY AVERAGE EMISSION RATES

	<u>De Minimis Increment</u> Tons/yr	Emission Factor lbs emitted/lb input	Allowable 90-Day Hourly Average* Emission Rate lb/hr
Lead	0.6	3.27×10^{-3}	1.37×10^{-1}
Beryllium	0.0004	2.39×10^{-4}	9.23×10^{-5}
Mercury	0.1	1.02×10^{-1}	2.28×10^{-2}

* Based upon 24 hour/day, 365 day/year potential

It shall be a condition of this permit whereby Continental has demonstrated at least a 99.99% destruction and removal efficiency (DRE) for all organic compounds, Continental must monitor oxygen levels in the kiln by the use of an oxygen continuous emission monitor device which will demonstrate that sufficient oxygen is present in the kiln to maintain this level of destruction. The six minute rolling average concentration of oxygen in the combustion air shall not be less than one percent (1%) measured at a point where the combustion air exits the kiln and the minimum temperature in the burning zone of the kiln shall not be less than its BIF limit on a hourly rolling average basis as measured by a temperature sensitive device.

Continuous compliance shall be monitored by the use of an oxygen CEM at the back end of the kiln. Continental has installed a computerized interlock system in which a waste fuel cutoff device will immediately cut off the waste fuel supply if the oxygen content of the kiln gases are not within the limits specified above. The waste fuel will not be restarted until such time as the oxygen concentration is within the limits specified above. (Special Condition Number 3)

It shall be a condition of this permit that Continental maintain compliance with the particulate emission rate limit as defined by the "Process Weight Rule" in 10 CSR 10-3.050. (Special Condition Number 4)

It shall be a condition of this permit that Continental meet all reporting requirements of the State of Missouri and EPA's RCRA programs. The Air Pollution Control Program will, therefore, waive its reporting of waste solvent usage requirement since this is being accomplished by the Department of Natural Resources Waste Management Program RCRA already. (Special Condition Number 5)

It shall be a condition of this permit that Continental maintain records on-site which show the specific waste fuels (as per the hazardous waste fuels manifest) in each shipment received, and the weight (in tons or pounds) of each shipment of solid and liquid waste fuel received. Also, Continental shall maintain records on-site showing, calendar quarterly and twelve-month (12-month) rolling totals of waste fuels received in tons. (Special Condition Number 6)

It shall be a condition of this permit that: (Special Condition Number 7)

- Continental shall restrict the amount of waste fuels fed into the kiln to the following:
 - No more than 461.1 pounds per minute of liquid waste fuel shall be fed to the kiln on an hourly rolling average basis (as determined by the 1996 BIF testing), and
 - No more than 539.2 pounds per minute of total hazardous waste fuel shall be fed to the kiln on an hourly rolling average basis (as determined by the 1996 BIF testing).
 - If additional compliance testing is conducted in the future, then the maximum allowable liquid and total waste fuel rate restrictions currently in effect shall be vacated and Continental shall adhere to the

maximum allowable waste feed rate limits as determined by the most recently approved compliance test. Any such replacement of the existing maximum waste fuel rate restrictions shall not become effective until approval is received from the Missouri Department of Natural Resources.

- (4) The above maximum allowable waste feed rate limits may be temporarily suspended during periods when additional compliance testing is being conducted.

It shall be a condition of this permit that Continental shall feed waste fuels to the kiln only under the following conditions: (Special Condition Number 8)

- Combustion temperature in the kiln at the area of the waste fuel injection as read by temperature sensitive devices shall be maintained at or above the BIF limit on a hourly rolling average basis. This shall be monitored by the use of two operable temperature sensitive devices at all times. Exceedance of this operating set point shall result in automatic waste fuel feed shut off.
- The combined heat content of coal, solid waste fuels and liquid waste fuels shall be 8000 BTU per pound or greater, as measured at the burner tip. Records of the heat content of each tank of liquid waste fuel, as fired, and each solid waste fuel, as fired, directly to the kiln shall be kept onsite.
- During start-up and shut-down of the kiln, the waste fuels must not be introduced into the kiln.

The temperature sensitive devices in Condition 8A shall be fitted to the kiln and wired into an automatic waste fuel cut-off valve such that if the kiln temperature falls below the BIF limit based on a hourly rolling average, the supply of waste fuels will be immediately cut off and will not be restarted until such time as the kiln temperature reaches the BIF limit. (Special Condition Number 9)

It shall be a condition of this permit that Continental shall participate in a blended waste fuels periodic grab sampling program upon the request of the Air Pollution Control Program. Continental shall contract with an independent laboratory approved by the Air Pollution Control Program to conduct the grab sampling in accordance with a Quality Assurance Project Plan to be completed by Continental and the independent laboratory, and submitted to the Air Pollution Control Program. Said Quality Assurance Project Plan shall become a part of the permit.

Continental shall have the necessary facilities available to allow grab sampling directly from the fuel lines upstream from the pump, but downstream from the junction point of all fuel tank lines. All grab sampling shall be done by the Continental plant personnel in the presence of a representative of the Air Pollution Control Program. All samples shall be surrendered to the Air Pollution Control Program representative immediately following sampling and forwarded to the independent lab. A chain of custody form shall accompany all samples from plant to lab and be returned to the Air Pollution Control Program along with the lab's analysis report.

Each sample shall have a distinct number affixed to its container and the number shall be recorded through all steps of the chain of custody. The independent laboratory's reports shall include the following statement at the end of the report: "We have received the Continental Cement Company sample numbers indicated in this report, by chain of custody, and do hereby attest by our signatures below that this report contains the actual correct and accurate data as a result of our analysis of the samples as received." This statement shall then be signed by all laboratory personnel involved in the analysis of the samples. The intent of this grab sampling program is to have unscheduled periodic random sampling for lead, mercury and beryllium in ppm by weight, ash and suspended solids contents in percent by weight, chlorine contents in percent by weight, and heat content in BTU/#. The sampling is to be initiated by the Macon Regional Office of the Department of Natural Resources and this intent should be retained in the Quality Assurance Project Plan. (Special Condition Number 10)

Continental shall determine and record 90day hourly rolling average feed rates for lead, beryllium and mercury in hazardous waste fuels fed to the kiln. A determination of 90day hourly emissions, based upon the 90day hourly rolling average feed rate of lead, beryllium and mercury and calculated using emission factors previously described in Condition 2, shall be made and compared with the incremental increase allowed in Condition 2 while burning hazardous waste fuels. These records shall be maintained on-site. The increase of lead, beryllium and mercury from burning hazardous waste fuels as calculated in Condition 2 shall be less than one-fourth of the de minimis increment levels found in 10 CSR 106060(3)(A), Table I(0.6 ton per year, 0.0004 ton per year, and 0.1 ton per year respectively). (Special Condition Number 11)

Failure to comply with any of the above conditions shall constitute, in and of itself, a violation of the permit. (Special Condition Number 12)

Record Keeping:

For Special Conditions 1 through 6 and 9 through 11 record keeping shall be kept on-hand for a period of five-years of operation, and shall be made immediately available to the Department of Natural Resources' personnel upon request. (Special Condition Number 13)

For Special Condition Number 7 Continental shall keep an accurate record of the hourly rolling averages of pounds per minute of liquid waste fuels and total waste fuels fed to the kiln. Continental shall maintain a record, on-site, for all the hourly liquid and total waste fuel feed rates to the kiln for not less than 5 years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request. (Special Condition Number 7)

Reporting:

Any record keeping that demonstrates noncompliance with the above conditions shall be submitted within thirty (30) days of the reported time frame to Missouri Department of Natural Resources, Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. (Special Condition Number 14)

Permit Condition EU0020-01

40 CFR Part 63, Subpart LLL
National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Particulate Matter
40 CFR Part 63, Subpart A
General Provisions

Emission Limitation:

The permittee shall not cause to be discharged into the atmosphere from the clinker cooler any gases which contain particulate matter in excess of 0.050 kg per Mg (0.10 lb per ton) of feed (dry basis) to the kiln. (§63.1345(a)(1))

Performance Testing:

- The permittee shall demonstrate initial compliance with the clinker cooler by conducting a performance test as specified in §63.1349(b)(1)(i) through (b)(1)(iii). (§63.1349(b)(1))
- EPA Method 5 of appendix A to part 60 of this chapter shall be used to determine PM emissions. Each performance test shall consist of three separate runs under the conditions that exist when the clinker cooler is operating at the representative performance conditions in accordance with §63.7(e). Each run shall be conducted for at least one hour, and the minimum sample volume shall be 0.85 dscm (30 dscf). The average of the three runs shall be used to determine compliance. A determination of the particulate matter collected in the impingers ("back half") of the Method 5 particulate sampling train is not required to demonstrate

initial compliance with the PM standards of this subpart. However, this shall not preclude the permitting authority from requiring a determination of the “back half” for other purposes. (§63.1349(b)(1)(i))

- Suitable methods shall be used to determine the kiln feed rate, except for fuels, for each run. (§63.1349(b)(1)(ii))
- The emission rate, E of PM shall be computed for each run using the following equation (§63.1349(b)(1)(iii)): $E = (C_s Q_{sd}) / P$ Where:
 - E = emission rate of PM, kg/Mg of kiln feed
 - C_s = concentration of PM, kg/dscm
 - Q_{sd} = volumetric flow rate of effluent gas, dscm/hr
 - P = total kiln feed (dry basis), Mg/hr
- Except as provided in §63.1349(e), performance tests required under §63.1349(b)(1) and (b)(2) shall be repeated every five years, except that the permittee of a kiln, in-line kiln/raw mill or clinker cooler is not required to repeat the initial performance test of opacity for the kiln, inline kiln/raw mill or clinker cooler. (§63.1349(b)(1)(iv))

Record Keeping:

- The permittee shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. (§63.1355(a))
- The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and (§63.1355(b))
 - (1) All documentation supporting initial notifications and notifications of compliance status under §63.9; (§63.1355(b)(1))
 - (2) All records of applicability determination, including supporting analyses; and (§63.1355(b)(2))
 - (3) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements. (§63.1355(b)(3))

Reporting:

- The permittee shall comply with the reporting requirements for the performance test stated in Permit Condition: PW004.
- As required by §63.10(d)(2), the permittee shall report the results of performance tests as part of the notification of compliance status. (§63.1354(b)(1))

Permit Condition EU0020-02

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

No permittee shall cause to be discharged into the atmosphere from the clinker cooler any gases which exhibit opacity greater than ten percent. (§63.1345(a)(2))

Performance Testing:

- The opacity exhibited during the period of the Method 5 performance test for particulate matter required by §63.1349(b)(1)(i) shall be determined as required in §63.1349(b)(1)(v) through (vi). (§63.1349(b)(1))
- Except as provided in §63.1349(b)(1)(vi), the opacity exhibited during the period of the Method 5 performance tests required by §63.1349(b)(1)(i) shall be determined through the use of a continuous opacity monitor (COM). The maximum six-minute average opacity during the three Method 5 test runs shall be determined during each Method 5 test run, and used to demonstrate initial compliance with the applicable opacity limits of §63.1343(b)(2). (§63.1349(b)(1)(v))

Monitoring:

- The permittee of a clinker cooler shall monitor opacity at each point where emissions are vented from the clinker cooler in accordance with §63.1350(d)(1) through (d)(3). §63.1350(d)
- Except as provide in §63.1350(d)(2), the permittee shall install, calibrate, maintain, and continuously operate a COM located at the outlet of the clinker cooler PM control device to continuously monitor the opacity. The COM shall be installed, maintained, calibrated, and operated as required by subpart A, general provisions of this part, and according to PS-1 of appendix B to part 60 of this chapter. (§63.1350(d)(1))
- To remain in compliance, the opacity must be maintained such that the 6-minute average opacity for any 6-minute block period does not exceed 10 percent. If the average opacity for any 6-minute block period exceeds ten percent (10%), this shall constitute a violation of the standard. (§63.1350(d)(3))

Record Keeping:

- The permittee shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. (§63.1355(a))
- The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and (§63.1355(b))
 - (1) All documentation supporting initial notifications and notifications of compliance status under §63.9; (§63.1355(b)(1))
 - (2) All records of applicability determination, including supporting analyses; and (§63.1355(b)(2))
 - (3) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements. (§63.1355(b)(3))
- The permittee shall maintain all records required by §63.10(c). (§63.1355(c))

Reporting:

- As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. (§63.1354(b)(2))
- As required by §63.10(e)(2), the permittee using a continuous opacity monitoring system to determine opacity compliance during any performance test required under §63.7 and described in §63.6(d)(6) shall report the results of the continuous opacity monitoring system performance evaluation conducted under §63.8(e). (§63.1354(b)(7))
- As required by §63.10(e)(3), the permittee equipped with a continuous emission monitor shall submit an excess emissions and continuous monitoring system performance report for any event when the continuous monitoring system data indicates the source is not in compliance with the applicable emission limitation or operating parameter limit. (§63.1354(b)(8))
- If the total continuous monitoring system downtime for any CEM or any continuous monitoring system (CMS) for the reporting period is ten percent or greater of the total operating time for the reporting period, the permittee shall submit an excess emissions and continuous monitoring performance report along with the summary report (mentioned in PW003). (§63.1354(b)(10))

Permit Condition EU0030-01 through EU0390-01 and EU0420-01

10 CSR 10-6.400

Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

The permittee shall not emit particulate matter in excess of

- 50.1 lbs/hr from EU0030.
- 50.1 lbs/hr from EU0040.
- 50.1 lbs/hr from EU0050.
- 50.1 lbs/hr from EU0060.
- 50.1 lbs/hr from EU0070.
- 50.1 lbs/hr from EU0080.
- 50.1 lbs/hr from EU0090.
- 50.1 lbs/hr from EU0100.
- 50.1 lbs/hr from EU0110.
- 50.1 lbs/hr from EU0120.
- 50.1 lbs/hr from EU0130.
- 50.1 lbs/hr from EU0140.
- 50.1 lbs/hr from EU0150.
- 50.1 lbs/hr from EU0160.
- 50.1 lbs/hr from EU0170.
- 50.1 lbs/hr from EU0180.
- 50.1 lbs/hr from EU0190.
- 48.4 lbs/hr from EU0200.
- 48.4 lbs/hr from EU0210.
- 66.0 lbs/hr from EU0220.
- 66.0 lbs/hr from EU0230.
- 66.0 lbs/hr from EU0240.
- 66.0 lbs/hr from EU0250.
- 48.4 lbs/hr from EU0260.
- 66.0 lbs/hr from EU0270.
- 66.0 lbs/hr from EU0280.
- 66.0 lbs/hr from EU0290.

- 66.0 lbs/hr from EU0300.
- 57.0 lbs/hr from EU0320.
- 51.3 lbs/hr from EU0330.
- 51.3 lbs/hr from EU0340.
- 51.3 lbs/hr from EU0350.
- 51.3 lbs/hr from EU0360.
- 51.3 lbs/hr from EU0370.
- 51.3 lbs/hr from EU0380.
- 51.3 lbs/hr from EU0390.
- 51.3 lbs/hr from EU0420.

The concentration of particulate matter in the exhaust gases shall not exceed 03.gr/scf from EU0030 through EU0390 and EU0420.

Monitoring/Record Keeping:

- (1) The permittee shall retain the potential to emit calculations in the Statement of Basis which demonstrate that the above emissions limitations will not be exceeded.
- (2) The calculation shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.
- (3) All records shall be kept for a period of five years.

Reporting:

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any of the terms imposed by 10 CSR 10-6.400.

Permit Condition EU0400-01, EU0410-01, EU0430-01, EU0440-01
10 CSR 10-6.400 Restriction of Emission of Particulate Matter from Industrial Processes

Emission Limitation:

The permittee shall not emit particulate matter in excess of

- 63.0 lbs/hr from EU0400.
- 63.0 lbs/hr from EU0410.
- 88.2 lbs/hr from EU0430.
- 88.2 lbs/hr from EU0440.

The concentration of particulate matter in the exhaust gases shall not exceed 03.gr/scf from EU0400, EU0410, EU0430, EU0440.

Monitoring:

The permittee shall comply with the monitoring requirements listed below:

- Baghouse operation and maintenance:
 - (1) The baghouse shall be maintained such that the pressure drop remains in the normal operating range (1.0 in H₂O to 10 inch H₂O), whenever the emission unit is in operation.
 - (2) All instruments and control equipment shall be calibrated, maintained and operated according to the manufacture specifications and recommendations.
 - (3) Check and document the baghouse pressure drop weekly. If the pressure drop falls out of the normal operating range, corrective action shall be taken within eight hours to return the pressure drop to normal.
 - (4) Check and document the cleaning sequence of the baghouse monthly.
 - (5) Thoroughly inspect bags for leaks and wear quarterly.

- (6) Inspect every six months all components that are not subject to wear or plugging, including structural components, housing, ducts and hoods.
- (7) If leaks or abnormal conditions are detected the appropriate measures for remediation shall be implemented within eight hours.

Record Keeping:

- The permittee shall document all pressure drop readings. (See Attachment E)
- The permittee shall maintain a written or electronic record of all inspections and any action resulting from the inspection. (see Attachment F)
- All instrument calibrations shall be recorded.
- All bag replacements shall be documented.
- All records shall be maintained for five years. These records shall be made available immediately for inspection to the Department of Natural Resources' personnel upon request.

Reporting:

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition EU0030-02 through EU0180-02, EU0245, EU0300-02, EU0310-01, EU0330-02 through EU0440-02
10 CSR 10-6.075 Maximum Achievable Control Technology 10 CSR 10-6.220 Restriction of Emission of Visible Air Contaminants 40 CFR Part 63, Subpart LLL National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity 40 CFR 63, Subpart A General Provisions

Emission Limitation:

- The permittee shall not cause to be discharged any gases from EU0030 through EU0180 and EU0245 and EU0300 and EU0310 and EU0330 through EU0440 which exhibit opacity in excess of ten percent (10%). (§63.1348)

Performance Testing:

- The permittee of any subject to limitations on opacity under this subpart that is not subject to §63.1349(b)(1) shall demonstrate initial compliance with the affected opacity limit by conducting a test in accordance with Method 9 of 40 CFR 60. The performance test shall be conducted under the conditions that exist when the affected source is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the method 9 performance test shall be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through (ii) apply. (§63.1349(b)(2)):
 - (1) There are no individual readings greater than ten percent (10%) opacity (§63.1349(b)(2)(i));

- (2) There are no more than three readings of ten percent (10%) for the first 1-hour period.
(§63.1349(b)(2)(ii))
- Performance tests required under §63.1349(b)(2) shall be repeated every five years. (§63.1349(c))

Monitoring:

- The permittee subject to a limitation on opacity under §63.1346 or §63.1348 shall monitor opacity in accordance with the operation and maintenance plan developed in accordance with §63.1350(a).
(§63.1350(j))
- The permittee must conduct a monthly 1-minute visible emissions test of each affected source in accordance with Method 22 of appendix A to part 60 of this chapter. The test must be conducted while the affected source is in operation. (§63.1350(a)(4)(i))
- If no visible emissions are observed in six consecutive monthly tests for any affected source, the permittee may decrease the frequency of testing from monthly to semi-annually for that affected source. If visible emissions are observed during any semi-annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible consecutive monthly tests.
(§63.1350(a)(4)(ii))
- If no visible emissions are observed during the semi-annual test for any affected source, the permittee may decrease the frequency of testing from semi-annually to annually for that affected source. If visible emissions are observed during any annual test, the permittee must resume testing of that affected source on a monthly basis and maintain that schedule until no visible emissions are observed in six consecutive monthly tests. (§63.1350(a)(4)(iii))
- If visible emissions are observed during any Method 22 test, the permittee must conduct a 6-minute test of opacity in accordance with Method 9 of appendix A to part 60 of this chapter. The Method 9 test must begin within one hour of any observation of visible emissions. (§63.1350(a)(4)(iv))

Record Keeping:

- The permittee shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by §63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, on magnetic tape, or on microfiche. (§63.1355(a))
- The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and (§63.1355(b))
 - (1) All documentation supporting initial notifications and notifications of compliance status under §63.9; (§63.1355(b)(1))
 - (2) All records of applicability determination, including supporting analyses; and (§63.1355(b)(2))
 - (3) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements.
(§63.1355(b)(3))

Reporting:

As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349.
(§63.1354(b)(2))

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition EU0190-02 through 290-02

10 CSR 10-6.075

Maximum Achievable Control Technology

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

40 CFR Part 63, Subpart LLL

National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry – Opacity

40 CFR Part 63, Subpart A

General Provisions

Emission Limitation:

- The permittee shall not cause to be discharged from the mill sweep or air separator air pollution control devices any gases, which exhibit opacity in excess of ten percent. (§63.1347)

Performance Testing:

- The permittee of any installation subject to limitations on opacity under this subpart that is not subject to §63.1349(b)(1) shall demonstrate initial compliance with the affected installation opacity limit by conducting a test in accordance with Method 9 of 40 CFR 60. The performance test shall be conducted under the conditions that exist when the affected installation is operating at the representative performance conditions in accordance with §63.7(e). The maximum 6-minute average opacity exhibited during the test period shall be used to determine whether the affected source is in initial compliance with the standard. The duration of the method 9 performance test shall be 3 hours (30 6-minute averages), except that the duration of the Method 9 performance test may be reduced to 1 hour if the conditions of §63.1349(b)(2)(i) through (ii) apply. (§63.1349(b)(2)):
 - (1) There are no individual readings greater than 10 percent opacity (§63.1349(b)(2)(i));
 - (2) There are no more than three readings of 10 percent for the first 1-hour period. (§63.1349(b)(2)(ii))
- Performance tests required under §63.1349(b)(2) shall be repeated every five years. (§63.1349(c))

Monitoring:

- The permittee of a raw mill or finish mill shall monitor opacity by conducting daily visual emissions observations of the mill sweep and air separator PMCDs of these affected sources, in accordance with the procedures of Method 22 of appendix A of part 60 of this chapter. The Method 22 test shall be conducted while the affected source is operating at the representative performance conditions in accordance with 63.7(e). The duration of the Method 22 test shall be six minutes. If visible emissions are observed during any Method 22 visible emissions test, the permittee must (§63.1350(e)):
 - (1) Initiate, within one-hour, the corrective actions specified in the site specific operating and maintenance plan developed in accordance with §63.1350(a)(1) and (a)(2). (§63.1350(e)(1))
 - (2) Within 24 hours of the end of the Method 22 test in which visible emissions were observed, conduct a follow up Method 22 test of each stack from which visible emissions were observed during the previous Method 22 test. If visible emissions are observed during the follow up Method 22 test from any stack from which visible emissions were observed during the previous Method 22 test, conduct a visual opacity test of each stack from which emissions were observed during the follow up Method 22 test in accordance with Method 9 of appendix A to part 60 of this chapter. The duration of the Method 9 test shall be 30 minutes.

Record Keeping:

- The permittee shall maintain files of all information (including all reports and notifications) required by this section recorded in a form suitable and readily available for inspection and review as required by

§63.10(b)(1). The files shall be retained for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two years of data shall be retained on site. The remaining three years of data may be retained off site. The files may be maintained on microfilm, on a computer, on floppy disks, optical disks, on magnetic tape, or on microfiche. (§63.1355(a))

- The permittee shall maintain records for each affected source as required by §63.10(b)(2) and (b)(3); and (§63.1355(b))
 - (1) All documentation supporting initial notifications and notifications of compliance status under §63.9; (§63.1355(b)(1))
 - (2) All records of applicability determination, including supporting analyses; and (§63.1355(b)(2))
 - (3) If the permittee has been granted a waiver under §63.8(f)(6), any information demonstrating whether a source is meeting the requirements for a waiver of record keeping or reporting requirements. (§63.1355(b)(3))

Reporting:

As required by §63.10(d)(3), the permittee shall report the opacity results from tests required by §63.1349. (§63.1354(b)(2))

The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Permit Condition EU0445-01

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

10 CSR 10-6.060

Construction Permits Required

Construction Permit Number 0198-014

Emission Limitation

Continental Cement shall not emit more than 15.0 tons of particulate matter less than ten microns (PM₁₀) from the SynGyp process in any cumulative 12-month period. (Special Condition # 1)

Monitoring and Record Keeping:

Continental Cement shall maintain an accurate record of PM₁₀ emissions from the SynGyp process. These records shall include monthly and cumulative 12-month totals. These records shall be kept on-site for the most recent 60-month period of operation and shall be made immediately available to Department of Natural Resources' personnel upon request. The records shall be maintained on the attached form (see Attachment I), or any other substantially conforming form containing the same information. (Special Condition 2)

Reporting:

Continental Cement shall report to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after the end of each month, if the records of Condition 2 show that Continental Cement exceeded the limitations of Condition 1.

Unit No.	2000 EIQ Point	Description	Control Device	Volume (gal)	Year
EU0450	SF-2A,2B	Supplemental fuel storage tanks (6)	Vapor recovery-charcoal canisters	25,000	1986
EU0460	SF-3A,3B	Supplemental fuel burn tanks (2)	Vapor recovery-charcoal canisters	75,000	1990

Permit Condition EU0450-01 through EU0460-01

10 CSR 10-6.060
Emission Standards for Hazardous Air Pollutants
40 CFR Part 61 Subpart FF
National Emission Standard for Benzene Waste Operations

Emission Limitation:

For each waste stream that contains benzene, including (but not limited to) organic waste streams that contain less than ten percent (10%) water and aqueous waste stream, even if the wastes are not discharged to an individual drain system, the permittee shall: (§61.342(c)(1))

- (1) Remove or destroy the benzene contained in the waste using a treatment process or wastewater treatment system that complies with the standards specified in §61.348. (§61.342(c)(1)(i))
- (2) Comply with the standards specified in §§61.343 through 61.347 for each waste management unit that receives or manages the waste stream prior to and during treatment of the waste stream in accordance with §61.342(c)(1)(i). (§61.342(c)(1)(ii))

The permittee shall install, operate and maintain a fixed-roof and closed-vent system that routes all organic vapors vented from the tank to a control device. (§61.343(a)(1))

Operating Parameters:

- The fixed-roof shall meet the following requirements: (§61.343(a)(1)(i))
 - (1) The cover and all openings (e.g., access hatches, sampling ports and gauge wells) shall be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h). (§61.343(a)(1)(i)(A))
 - (2) Each opening shall be maintained in a closed, sealed position (e.g., covered by a lid that is gasketed and latched) at all times that waste is in the tank except when it is necessary to use the opening for waste sampling or removal, or for equipment inspection, maintenance, or repair. (§61.343(a)(1)(i)(B))
 - (3) If the cover and closed-vent system operate such that the tank is maintained at a pressure less than atmospheric pressure, then §61.343(a)(1)(i)(B) does not apply to any opening that meets all of the following conditions: (§61.343(a)(1)(i)(C))
 - (a) The purpose of the opening is to provide dilution air to reduce the explosion hazard; (§61.343(a)(1)(i)(C)(1))
 - (b) The opening is designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h); and (§61.343(a)(1)(i)(C)(2))
 - (c) The pressure is monitored continuously to ensure that the pressure in the tank remains below atmospheric pressure. (§61.343(a)(1)(i)(C)(3))

The closed-vent system and control device shall be designed and operated in accordance with the requirements of §61.349. (§61.343(a)(1)(ii))

- The closed-vent system shall: (§61.349(a)(1))
 - (1) Be designed to operate with no detectable emissions as indicated by an instrument reading of less than 500 ppmv above background, as determined initially and thereafter at least once per year by the methods specified in §61.355(h). (§61.349(a)(1)(i))
 - (2) All gauging and sampling devices shall be gas-tight except when gauging or sampling is taking place. (§61.349(a)(1)(iii))
 - (3) For each closed-vent system complying with §61.349(a), one or more devices which vent directly to the atmosphere may be used on the closed-vent system provided each device remains in a closed, sealed position during normal operations except when the device needs to open to prevent physical damage or permanent deformation of the closed-vent system resulting from malfunction of the unit in accordance with good engineering and safety practices for handling flammable, explosive, or other hazardous materials. (§61.349(a)(1)(iv))
- The control device shall be designed and operated in accordance with the following conditions: A vapor recovery system (e.g., a carbon adsorption system or a condenser) shall recover or control the organic emissions vented to it with an efficiency of 95 weight percent or greater, or shall recover or control the benzene emissions vented to it with an efficiency of 98 weight percent or greater. (§61.349(a)(2)) and (§61.349(a)(2)(ii))
- Each closed-vent system and control device used to comply with this subpart shall be operated at all times when waste is placed in the waste management unit vented to the control device except when maintenance or repair of the waste management unit cannot be completed without a shutdown of the control device. (§61.349(b))

Monitoring:

- The permittee shall demonstrate that the carbon adsorption system recovers or controls the organic emissions vented to it with an efficiency of 95 weight percent or greater, or recovers or controls the benzene emissions vented to it with an efficiency of 98 weight percent or greater by using one of the following methods: (modified §61.349(c))
 - (1) Engineering calculations in accordance with requirements specified in §61.356(f); or (§61.349(c)(1))
 - (2) Performance tests conducted using the test methods and procedures that meet the requirements specified in §61.355. (§61.349(c)(2))
- The Administrator may request at any time the permittee demonstrate that the carbon adsorption system recovers or controls the organic emissions vented to it with an efficiency of 95 weight percent or greater, or recovers or controls the benzene emissions vented to it with an efficiency of 98 weight percent or greater by conducting a performance test using the test methods and procedures as required in §61.355. (§61.349(e))
- Each closed-vent system and control device shall be visually inspected initially and quarterly thereafter. The visual inspection shall include inspection of ductwork and piping and connections to covers and control devices for evidence of visible defects such as holes in ductwork or piping and loose connections. (§61.349(f))
- Except as provided in §61.350, if visible defects are observed during an inspection, or if other problems are identified, or if detectable emissions are measured, a first effort to repair the closed-vent system and control device shall be made as soon as practicable but no later than 5 calendar days after detection. Repair shall be completed no later than 15 calendar days after the emissions are detected or the visible defect is observed. (§61.349(g))
 - (1) Delay of repair of facilities or units that are subject to the provisions of this subpart will be allowed if the repair is technically impossible without a complete or partial facility or unit shutdown. (§61.350(a))
 - (2) Repair of such equipment shall occur before the end of the next facility or unit shutdown. (§61.350(b))
- The permittee shall monitor the control device in accordance with §61.354. (§61.349(h))

- The permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device to continuously monitor the control device operation as specified in the following paragraphs, unless alternative monitoring procedures or requirements are approved for that facility by the Administrator. The permittee shall inspect at least once each operating day the data recorded by the monitoring equipment (e.g., temperature monitor or flow indicator) to ensure that the control device is operating properly. (§61.354(c))
- For a carbon adsorption system that regenerates the carbon bed directly in the control device such as a fixed-bed carbon absorber, either: (§61.354(c)(7))
 - (1) A monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the carbon bed; or (§61.354(c)(7)(i))
 - (2) A monitoring device equipped with a continuous recorder to measure a parameter that indicates the carbon bed is regenerated on a regular, pre-determined time cycle. (§61.354(c)(7)(ii))
- For a vapor recovery system other than a condenser or carbon adsorption system, a monitoring device equipped with a continuous recorder to measure either the concentration level of the organic compounds or the benzene concentration level in the exhaust vent stream from the control device. (§61.354(c)(8))
- For a carbon adsorption system that does not regenerate the carbon bed directly on site in the control device (e.g., a carbon canister), either the concentration level of the organic compounds or the concentration level of benzene in the exhaust vent stream from the carbon adsorption system shall be monitored on a regular schedule, and the existing carbon shall be replaced with fresh carbon immediately when carbon breakthrough is indicated. The device shall be monitored on a daily basis or at intervals no greater than 20% of the design carbon replacement interval, whichever is greater. As an alternative to conducting this monitoring, an permittee may replace the carbon in the carbon adsorption system with fresh carbon at a regular predetermined time interval that is less than the carbon replacement interval that is determined by the maximum design flow rate and either the organic concentration or the benzene concentration in the gas stream vented to the carbon adsorption system. (§61.354(d))
- Owners or operators using a closed-vent system that contains any bypass line that could divert a vent stream from a control device used to comply with the provision of this subpart shall do the following: (§61.354(f))
 - (1) Visually inspect the bypass line valve at least once every month, checking the position of the valve and the condition of the ear-seal or closure mechanism required under §61.349(a)(1)(ii) to ensure that the valve is maintained in the closed position and the vent stream is not diverted through the bypass line. (§61.354(f)(1))
 - (2) Visually inspect the reading from each flow monitoring device required by §61.349(a)(1)(ii) at least once each operating day to check that vapors are being routed to the control device as required. (§61.354(f)(2))
- Each permittee who uses a system for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air shall install, calibrate, maintain, and operate according to the manufacturer's specifications a device equipped with a continuous recorder to monitor the pressure in the unit to ensure that it is less than atmospheric pressure. (§61.354(g))
- The permittee shall test equipment for compliance with not detectable emissions as required in §§61.343 through 61.347, and §61.349 in accordance with the following requirements: (§61.355(h))
 - (1) Monitoring shall comply with method 21 from appendix A of 40 CFR Part 60. (§61.355(h)(1))
 - (2) The detection instrument shall meet the performance criteria of method 21. (§61.355(h)(2))
 - (3) The instrument shall be calibrated before use on each day of its use by the procedures specified in method 21. (§61.355(h)(3))
 - (4) Calibration gases shall be: (§61.355(h)(4))
 - (a) Zero air (less than 10 ppm of hydrocarbon in air); and (§61.355(h)(4)(i))
 - (b) A mixture of methane or n-hexane and air at a concentration of approximately but less than 10,000 ppm methane or n-hexane. (§61.355(h)(4)(ii))
 - (5) The background level shall be determined as set forth in method 21. (§61.355(h)(5))

- (6) The instrument probe shall be traversed around all potential leak interfaces as close as possible to the interface as described in method 21. (§61.355(h)(6))
- (7) The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared to 500 ppm for determining compliance. (§61.355(h)(7))

Record Keeping:

- The permittee using control equipment in accordance with §§61.343 through 61.347 shall maintain engineering design documentation for all control equipment that is installed on the waste management unit. The documentation shall be retained for the life of the control equipment. If a control device is used, then the permittee shall maintain the control device records required by §61.356(f). (§61.356(d))
- The permittee using a closed-vent system and control device in accordance with §61.349 shall maintain the following records. The documentation shall be retained for the life of the control device. (§61.356(f))
 - (1) A statement signed and dated by the permittee certifying that the closed-vent system and control device is designed to operate at the documented performance level when the waste management unit vented to the control device is or would be operating at the highest load or capacity expected to occur. (§61.356(f)(1))
 - (2) If engineering calculations are used to determine control device performance in accordance with §61.349(c), then a design analysis for the control device that includes for example: (§61.356(f)(2))
 - (a) Specifications, drawing, schematics, and piping and instrumentation diagrams prepared by the permittee, or the control device manufacturer or vendor that describe the control device design based on acceptable engineering texts. The design analysis shall address the following vent stream characteristics and control device operating parameters: (§61.356(f)(2)(i))
 - (i) For a carbon adsorption system that regenerates the carbon bed directly on-site in the control device such as a fixed-bed adsorber, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, number and capacity of carbon beds, type and working capacity of activated carbon used for carbon beds, design total steam flow over the period of each complete carbon bed regeneration cycle, duration of the carbon bed steaming and cooling/drying cycles, design carbon bed temperature after regeneration, design carbon bed regeneration time and design service life of carbon. (§61.356(f)(2)(i)(F))
 - (ii) For a carbon adsorption system that does not regenerate the carbon bed directly on-site in the control device, such as a carbon canister, the design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity and temperature. The design analysis shall also establish the design exhaust vent stream organic compound concentration level or the design exhaust vent stream benzene concentration level, capacity of carbon bed, type and working capacity of activated carbon used for carbon bed and design carbon replacement interval based on the total carbon working capacity of the control device and source operating schedule. (§61.356(f)(2)(i)(G))
 - (3) If performance tests are used to determine control device performance in accordance with §61.349(c): (§61.356(f)(3))
 - (a) A description of how it is determined that the test is conducted when the waste management unit or treatment process is operating at the highest load or capacity level. This description shall include the estimated or design flow rate and organic content of each vent stream and definition of the acceptable operating ranges of key process and control parameter during the test program. (§61.356(f)(3)(i))

- (b) A description of the control device including the type of control device, control device manufacturer's name and model number, control device dimensions, capacity and construction materials. (§61.356(f)(3)(ii))
 - (c) A detailed description of sampling and monitoring procedures, including sampling and monitoring locations in the system, the equipment to be used, sampling and monitoring frequency and planned analytical procedures for sample analysis. (§61.356(f)(3)(iii))
 - (d) All test results. (§61.356(f)(3)(iv))
- The permittee shall maintain a record for each visual inspection required by §§61.343 through 61.347 that identifies a problem (such as a broken seal, gap or other problem) which could result in benzene emissions. The record shall include the date of the inspection, waste management unit and control equipment location where the problem is identified, a description of the problem, a description of the corrective action taken and the date the corrective action was completed. (§61.356(g))
- The permittee shall maintain a record for each test of not detectable emissions required by §§61.343 through 61.347 and §61.349. The record shall include the following information: date the test is performed, background level measured during test, and maximum concentration indicated by the instrument reading measured for each potential leak interface. If detectable emissions are measured at a leak interface, then the record shall also include the waste management unit, control equipment, and leak interface location where detectable emissions were measured, a description of the problem, a description of the corrective action taken, and the date the corrective action was completed. (§61.356(h))
- For each control device, the permittee shall maintain documentation that includes the following information regarding the control device operation: (§61.356(j))
 - (1) Dates of startup and shutdown of the closed-vent system and control device. (§61.356(j)(1))
 - (2) A description of the operating parameter (or parameters) to be monitored to ensure that the control device will be operated in conformance with these standards and the control device's design specifications and an explanation of the criteria used for selection of the parameter (or parameters). This documentation shall be kept for the life of the control device. (§61.356(j)(2))
 - (3) Periods when the closed-vent system and control device are not operated as designed including all periods and the duration when:
 - (a) Any valve seal or closure mechanism required under §61.349(a)(1)(ii) is broken or the bypass line valve position has changed. (§61.356(j)(3)(i))
 - (b) The flow monitoring devices required under §61.349(a)(1)(ii) indicate that vapors are not routed to the control device as required. (§61.356(j)(3)(ii))
 - (4) If a carbon adsorber is used, then the permittee shall maintain records from the monitoring device of the concentration of organics or the concentration of benzene in the control device outlet gas stream. If the concentration of organics or the concentration of benzene in the control device outlet gas stream is monitored, then the permittee shall record all 3-hour periods of operation during which the concentration of organics or the concentration of benzene in the exhaust stream is more than 20 percent greater than the design value. If the carbon bed regeneration interval is monitored, then the permittee shall record each occurrence when the vent stream continues to flow through the control device beyond the predetermined carbon bed regeneration time. (§61.356(j)(9))
 - (5) If a carbon adsorber that is not regenerated directly on site in the control device is used, then the permittee shall maintain records of dates and times when the control device is monitored, when breakthrough is measured, and shall record the date and time when the existing carbon in the control device is replaced with fresh carbon. (§61.356(j)(10))
- If a system is used for emission control that is maintained at a pressure less than atmospheric pressure with openings to provide dilution air, then the permittee shall maintain records of the monitoring device and records of all periods during which the pressure in the unit is operated at a pressure that is equal to or greater than atmospheric pressure. (§61.356(m))

Reporting:

- If the total annual benzene quantity from facility waste is equal to or greater than 10 Mg/yr, then the permittee shall submit to the Administrator the following reports: (§61.357(d))
 - (1) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit quarterly to the Administrator a certification that all of the required inspections have been carried out in accordance with the requirements of this subpart. (§61.357(d)(6))
 - (2) Beginning 3 months after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit a report quarterly to the Administrator that includes: (§61.357(d)(7))
 - (a) For a control device monitored in accordance with §61.354(c), each period of operation monitored during which any of the following conditions occur, as applicable to the control device: (§61.357(d)(7)(iv))
 - (i) Each 3-hour period of operation during which the average concentration of organics or the average concentration of benzene in the exhaust gases from a carbon adsorber is more than 20 percent greater than the design concentration level of organics or benzene in the exhaust gas. (§61.357(d)(7)(iv)(D))
 - (ii) Each occurrence when the carbon in a carbon adsorber system that is regenerated directly on site in the control device is not regenerated at the predetermined carbon bed regeneration time. : (§61.357(d)(7)(iv)(H))
 - (iii) Each occurrence when the carbon in a carbon adsorber system that is not regenerated directly on site in the control device is not replaced at the pre-determined interval specified in §61.354(c). (§61.357(d)(7)(iv)(I))
 - (b) For a cover and closed-vent system monitored in accordance with §61.354(g), the permittee shall submit a report quarterly to the Administrator that identifies any period in which the pressure in the waste management unit is equal to or greater than atmospheric pressure. (§61.357(d)(7)(v))
 - (3) Beginning one year after the date that the equipment necessary to comply with these standards has been certified in accordance with §61.357(d)(1), the permittee shall submit annually to the Administrator a report that summarizes all inspections required by §§61.342 through 61.354 during which detectable emissions are measured or a problem (such as a broken seal, gap or other problem) that could result in benzene emissions is identified, including information about the repairs or corrective action taken. (§61.357(d)(8))

Permit Condition EU0450-02 through EU0460-02

10 CSR 10-6.070

New Source Performance Regulations

40 CFR Part 60 Subpart Kb

Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984

Emission Limitation:

- Each storage vessel with design capacity greater than or equal to 151m³ (39,900 gal) containing a volatile organic liquid (VOL) that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa (0.75 psia) but less than 76.6 kPa (11.1 psia) shall be equipped with a closed vent system and control device meeting the following specifications:
 - (1) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in CFR 60, Subpart VV, §60.485(b). §60.112b(a)(3)(I)

- (2) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. §60.112b(a)(3)(ii)

Monitoring:

- The permittee shall continuously monitor the HC concentration in ppm from the exit of the carbon absorbers. (§60.113b(c)(2))

Record Keeping:

- The permittee shall keep the following records. (§60.115b(c))
 - (1) A copy of the operating plan. (§60.115b(c)(1))
 - (2) A record of the continuously monitored HC concentration in ppm from the exit of the carbon absorbers at the vent to the kiln (modified §60.115b(c)(2))

These records shall be kept for at least five (5) years and shall be made available immediately for inspection to the Department of Natural Resources' personnel upon verbal request or to the Director upon written request.

Reporting:

- The permittee is exempt from §60.8 of the General Provisions and shall meet the following requirements. (§60.113b(c))
 - (1) Submit for approval by the Administrator as an attachment to the notification required by §60.7(a)(1) or, if the facility is exempt from §60.7(a)(1), as an attachment to the notification required by §60.7(a)(2), an operating plan containing the information listed below. (§60.113b(c)(1))
 - (a) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the control device. If the control device on the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816°C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph. (§60.113b(c)(1)(i))
- A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters). (§60.113b(c)(1)(ii))
- The permittee shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, MO 5102, no later than 10 days after any deviation from or exceedance of any of the terms imposed by this regulation, or any malfunction which causes a deviation from or exceedance of this regulation.

Unit No.	2000 EIQ Point	Description	Year
EU04700-EU0510	AS-3A,4A,5A,6A,7A	Artificial Soils Project	1991

Permit Condition EU0470-01 through EU0510-01

10 CSR 10-6.220

Restriction of Emission of Visible Air Contaminants

10 CSR 10-6.060

Construction Permits Required

Construction Permit Number 122001-014

Emission Limitation:

- Continental Cement Company shall not discharge into the atmosphere for this artificial soil program PM₁₀ in excess of 15 tons in any 12-consecutive month period. (Special Condition #1)
- Continental Cement Company shall water unpaved haul road and vehicular activity areas around storage piles whenever conditions exist which would cause visible fugitive emissions to enter the ambient air beyond the property boundary. (Special Condition #2)

Monitoring and Record Keeping:

- The permittee shall monitor the amount of artificial soil replacement and maintain records on the PM₁₀ emissions on a rolling 12-month basis. Attachment A (as presented in Construction Permit Number 122001-014) or an equivalent form approved by Air Pollution Control Program (APCP) shall be used for record keeping. Continental Cement shall maintain all records required by this permit for not less than five (5) years and shall make them available immediately to any Missouri Department of Natural Resources' personnel upon request.

Reporting:

- Continental Cement shall report to the Air Pollution Control Enforcement Section, P.O. Box 176, 205 Jefferson Street, Jefferson City, MO 65102, no later than (10) days after the end of the month where records show that the source exceeded the emission limitation

IV. Core Permit Requirements

The installation shall comply with each of the following emission limitations. Consult the appropriate sections in the Code of Federal Regulations (CFR) and Code of State Regulations (CSR) for the full text of the applicable requirements.

10 CSR 10-6.050, Start-up, Shutdown and Malfunction Conditions

- (a.) In the event of a malfunction, which results in excess emissions that exceed one hour, the permittee shall submit to the director within two business days in writing the following information:
- (1.) Name and location of installation;
 - (2.) Name and telephone number of person responsible for the installation;
 - (3.) Name of the person who first discovered the malfunction and precise time and date that the malfunction was discovered.
 - (4.) Identity of the equipment causing the excess emissions;
 - (5.) Time and duration of the period of excess emissions;
 - (6.) Cause of the excess emissions;
 - (7.) Air pollutants involved;
 - (8.) Best estimate of the magnitude of the excess emissions expressed in the units of the applicable requirement and the operating data and calculations used in estimating the magnitude;
 - (9.) Measures taken to mitigate the extent and duration of the excess emissions; and
 - (10.) Measures taken to remedy the situation that caused the excess emissions and the measures taken or planned to prevent the recurrence of these situations.
- (b.) The permittee shall submit the paragraph (a.) information list to the director in writing at least ten days prior to any maintenance, start-up or shutdown, which is expected to cause an excessive release of emissions that exceed one hour. If notice of the event cannot be given ten days prior to the planned occurrence, it shall be given as soon as practicable prior to the release. If an unplanned excess release of emissions exceeding one hour occurs during maintenance, start-up or shutdown, the director shall be notified verbally as soon as practical during normal working hours and no later than the close of business of the following working day. A written notice shall follow within ten working days.
- (c.) Upon receipt of a notice of excess emissions issued by an agency holding a certificate of authority under section 643.140, RSMo, the permittee may provide information showing that the excess emissions were the consequence of a malfunction, start-up or shutdown. The information, at a minimum, should be the paragraph (a.) list and shall be submitted not later than 15 days after receipt of the notice of excess emissions. Based upon information submitted by the permittee or any other pertinent information available, the director or the commission shall make a determination whether the excess emissions constitute a malfunction, start-up or shutdown and whether the nature, extent and duration of the excess emissions warrant enforcement action under section 643.080 or 643.151, RSMo.
- (d.) Nothing in this rule shall be construed to limit the authority of the director or commission to take appropriate action, under sections 643.080, 643.090 and 643.151, RSMo to enforce the provisions of the Air Conservation Law and the corresponding rule.
- (e.) Compliance with this rule does not automatically absolve the permittee of liability for the excess emissions reported.

10 CSR 10-6.065, Operating Permits

The permittee shall file for renewal of this operating permit no sooner than eighteen months, nor later than six months, prior to the expiration date of this operating permit. The permittee shall retain the most current operating permit issued to this installation on-site and shall immediately make such permit available to any Missouri Department of Natural Resources' personnel upon request.

10 CSR 10-6.110, Submission of Emission Data, Emission Fees and Process Information

- (a.) The permittee shall complete and submit an Emission Inventory Questionnaire (EIQ) in accordance with the requirements outlined in this rule.
- (b.) The permittee shall pay an annual emission fee per ton of regulated air pollutant emitted according to the schedule in the rule. This fee is an emission fee assessed under authority of RSMo. 643.079 to satisfy the requirements of the Federal Clean Air Act, Title V.
- (c.) The fees shall be due April 1 each year for emissions produced during the previous calendar year. The fees shall be payable to the Department of Natural Resources and shall be accompanied by the Emissions Inventory Questionnaire (EIQ) form or equivalent approved by the director.

10 CSR 10-6.130, Controlling Emissions During Episodes of High Air Pollution Potential

This rule specifies the conditions that establish an air pollution alert (yellow/orange/red/purple), or emergency (maroon) and the associated procedures and emission reduction objectives for dealing with each. The permittee shall submit an appropriate emergency plan if required by the Director.

10 CSR 10-6.150, Circumvention

The permittee shall not cause or permit the installation or use of any device or any other means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission or air contaminant which violates a rule of the Missouri Air Conservation Commission.

10 CSR 10-6.180, Measurement of Emissions of Air Contaminants

- (a.) The director may require any person responsible for the source of emission of air contaminants to make or have made tests to determine the quantity or nature, or both, of emission of air contaminants from the source. The director may specify testing methods to be used in accordance with good professional practice. The director may observe the testing. All tests shall be performed by qualified personnel.
- (b.) The director may conduct tests of emissions of air contaminants from any source. Upon request of the director, the person responsible for the source to be tested shall provide necessary ports in stacks or ducts and other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices as may be necessary for proper determination of the emission of air contaminants.
- (c.) The director shall be given a copy of the test results in writing and signed by the person responsible for the tests.

10 CSR 10-3.030, Open Burning Restrictions

- (a.) The permittee shall not conduct, cause, permit or allow a salvage operation, the disposal of trade wastes or burning of refuse by open burning.
- (b.) Exception - Open burning of trade waste or vegetation may be permitted only when it can be shown that open burning is the only feasible method of disposal or an emergency exists which requires open burning.
- (c.) Any person intending to engage in open burning shall file a request to do so with the director. The request shall include the following:
 - (1.) The name, address and telephone number of the person submitting the application; The type of business or activity involved; A description of the proposed equipment and operating practices, the type, quantity and composition of trade wastes and expected composition and amount of air contaminants to be released to the atmosphere where known;
 - (2.) The schedule of burning operations;
 - (3.) The exact location where open burning will be used to dispose of the trade wastes;
 - (4.) Reasons why no method other than open burning is feasible; and
 - (5.) Evidence that the proposed open burning has been approved by the fire control authority which has jurisdiction.

- (d.) Upon approval of the open burning permit application by the director, the person may proceed with the operation under the terms of the open burning permit. Be aware that such approval shall not exempt Continental Cement, Inc. from the provisions of any other law, ordinance or regulation.
- (e.) The permittee shall maintain files with letters from the director approving the open burning operation and previous Department of Natural Resources' inspection reports.

10 CSR 10-3.090, Restriction of Emission of Odors

No person may cause, permit or allow the emission of odorous matter in concentrations and frequencies or for durations that odor can be perceived when one volume of odorous air is diluted with seven volumes of odor-free air for two separate trials not less than 15 minutes apart within the period of one hour.

This requirement is not federally enforceable.

10 CSR 10-6.100, Alternate Emission Limits

Proposals for alternate emission limitations shall be submitted on Alternate Emission Limits Permit forms provided by the department. An installation permittee must obtain an Alternate Emission Limits Permit in accordance with 10 CSR 10-6.100 before alternate emission limits may become effective.

10 CSR 10-6.080, Emission Standards for Hazardous Air Pollutants
40 CFR Part 61 Subpart M, National Emission Standard for Asbestos

- (a.) The permittee shall follow the procedures and requirements of 40 CFR Part 61, Subpart M for any activities occurring at this installation which would be subject to provisions for 40 CFR Part 61, Subpart M, National Emission Standard for Asbestos.
- (b.) The permittee shall conduct monitoring to demonstrate compliance with registration, certification, notification, and Abatement Procedures and Practices standards as specified in 40 CFR Part 61, Subpart M.

10 CSR 10-6.250, Asbestos Abatement Projects – Certification, Accreditation, and Business Exemption Requirements

The permittee shall conduct all asbestos abatement projects within the procedures established for certification and accreditation by 10 CSR 10-6.250. This rule requires individuals who work in asbestos abatement projects to be certified by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires training providers who offer training for asbestos abatement occupations to be accredited by the Missouri Department of Natural Resources Air Pollution Control Program. This rule requires persons who hold exemption status from certain requirements of this rule to allow the department to monitor training provided to employees. Each individual who works in asbestos abatement projects must first obtain certification for the appropriate occupation from the department. Each person who offers training for asbestos abatement occupations must first obtain accreditation from the department. Certain business entities that meet the requirements for state-approved exemption status must allow the department to monitor training classes provided to employees who perform asbestos abatement.

Title VI – 40 CFR Part 82, Protection of Stratospheric Ozone

- (a.) The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:
 - (1.) All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to §82.106.
 - (2.) The placement of the required warning statement must comply with the requirements pursuant to §82.108.

- (3.) The form of the label bearing the required warning statement must comply with the requirements pursuant to §82.110.
- (4.) No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
- (b.) The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR part 82, Subpart F, except as provided for motor vehicle air conditioners (MVACs) in Subpart B:
 - (1.) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
 - (2.) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
 - (3.) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
 - (4.) Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like" appliance as defined at §82.152).
 - (5.) Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to §82.156.
 - (6.) Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
- (c.) If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.
- (d.) If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant.

The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *Federal Only - 40 CFR part 82*

10 CSR 10-6.280, Compliance Monitoring Usage

- (a.) The permittee is not prohibited from using the following in addition to any specified compliance methods for the purpose of submission of compliance certificates:
 - (1.) Monitoring methods outlined in 40 CFR Part 64;
 - (2.) Monitoring method(s) approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - (3.) Any other monitoring methods approved by the director.
- (b.) Any credible evidence may be used for the purpose of establishing whether a permittee has violated or is in violation of any such plan or other applicable requirement. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred by a permittee:
 - (1.) Monitoring methods outlined in 40 CFR Part 64;
 - (2.) A monitoring method approved for the permittee pursuant to 10 CSR 10-6.065, "Operating Permits", and incorporated into an operating permit; and
 - (3.) Compliance test methods specified in the rule cited as the authority for the emission limitations.
- (c.) The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

- (1.) Applicable monitoring or testing methods, cited in:
 - 10 CSR 10-6.030, "Sampling Methods for Air Pollution Sources";
 - 10 CSR 10-6.040, "Reference Methods";
 - 10 CSR 10-6.070, "New Source Performance Standards";
 - 10 CSR 10-6.080, "Emission Standards for Hazardous Air Pollutants"; or
- (2.) Other testing, monitoring, or information gathering methods, if approved by the director, that produce information comparable to that produced by any method listed above.

Draft

V. General Permit Requirements

Permit Duration

10 CSR 10-6.065(6)(C)1.B.

This permit is issued for a term of five years, commencing on the date of issuance. This permit will expire at the end of this period unless renewed.

General Record Keeping and Reporting Requirements

10 CSR 10-6.065(6)(C)1.C

I) Record Keeping

- A) All required monitoring data and support information shall be retained for a period of at least five years from the date of the monitoring sample, measurement, report or application.
- B) Copies of all current operating and construction permits issued to this installation shall be kept on-site for as long as the permits are in effect. Copies of these permits shall be made immediately available to any Missouri Department of Natural Resources' personnel upon request.

II) Reporting

- A) The permittee shall submit a report of all required monitoring by:
 - 1) October 1st for monitoring which covers the January through June time period, and
 - 2) April 1st for monitoring which covers the July through December time period.
 - 3) Exception: Monitoring requirements which require reporting more frequently than semi annually shall report no later than 30 days after the end of the calendar quarter in which the measurements were taken.
- B) Each report must identify any deviations from emission limitations, monitoring, record keeping, reporting, or any other requirements of the permit, this includes deviations or Part 64 exceedances.
- C) All reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102.
- D) Submit supplemental reports as required or as needed. Supplemental reports are required no later than ten days after any exceedance of any applicable rule, regulation or other restriction. All reports of deviations shall identify the cause or probable cause of the deviations and any corrective actions or preventative measures taken.
 - 1) Notice of any deviation resulting from an emergency (or upset) condition as defined in paragraph (6)(C)7 of 10 CSR 10-6.065 (Emergency Provisions) shall be submitted to the permitting authority either verbally or in writing within two working days after the date on which the emission limitation is exceeded due to the emergency, if you wish to assert an affirmative defense. The affirmative defense of emergency shall be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that indicate an emergency occurred and that you can identify the cause(s) of the emergency. The permitted installation must show that it was operated properly at the time and that during the period of the emergency the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or requirements in the permit. The notice must contain a description of the emergency, the steps taken to mitigate emissions, and the corrective actions taken.
 - 2) Any deviation that poses an imminent and substantial danger to public health, safety or the environment shall be reported as soon as practicable.
 - 3) Any other deviations identified in the permit as requiring more frequent reporting than the permittee's semiannual report shall be reported on the schedule specified in the permit.
 - 4) These supplemental reports shall be submitted to the Air Pollution Control Program, Enforcement Section, P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedance of any applicable rule, regulation, or other restriction.

- E) Every report submitted shall be certified by the responsible official, except that, if a report of a deviation must be submitted within ten days after the deviation, the report may be submitted without a certification if the report is resubmitted with an appropriate certification within ten days after that, together with any corrected or supplemental information required concerning the deviation.
- F) The permittee may request confidential treatment of information submitted in any report of deviation.

Risk Management Plans Under Section 112(r)

10 CSR 10-6.065(6)(C)1.D.

The permittee shall comply with the requirements of 40 CFR Part 68, Accidental Release Prevention Requirements. If the permittee has more than a threshold quantity of a regulated substance in process, as determined by 40 CFR Section 68.115, the permittee shall submit a Risk Management Plan in accordance with 40 CFR Part 68 no later than the latest of the following dates:

- 1) June 21, 1999;
- 2) Three years after the date on which a regulated substance is first listed under 40 CFR Section 68.130; or
- 3) The date on which a regulated substance is first present above a threshold quantity in a process.

Severability Clause

10 CSR 10-6.065(6)(C)1.F.

In the event of a successful challenge to any part of this permit, all uncontested permit conditions shall continue to be in force. All terms and conditions of this permit remain in effect pending any administrative or judicial challenge to any portion of the permit. If any provision of this permit is invalidated, the permittee shall comply with all other provisions of the permit.

General Requirements

10 CSR 10-6.065(6)(C)1.G

- 1) The permittee must comply with all of the terms and conditions of this permit. Any noncompliance with a permit condition constitutes a violation and is grounds for enforcement action, permit termination, permit revocation and re-issuance, permit modification or denial of a permit renewal application.
- 2) The permittee may not use as a defense in an enforcement action that it would have been necessary for the permittee to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit.
- 3) The permit may be modified, revoked, reopened, reissued or terminated for cause. Except as provided for minor permit modifications, the filing of an application or request for a permit modification, revocation and re-issuance, or termination, or the filing of a notification of planned changes or anticipated noncompliance, will not stay any permit condition.
- 4) This permit does not convey any property rights of any sort, nor grant any exclusive privilege.
- 5) The permittee shall furnish to the Air Pollution Control Program, upon receipt of a written request and within a reasonable time, any information that the Air Pollution Control Program reasonably may require to determine whether cause exists for modifying, reopening, reissuing or revoking the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the Air Pollution Control Program copies of records required to be kept by the permittee. The permittee may make a claim of confidentiality for any information or records submitted pursuant to 10 CSR 10-6.065(6)(C)1.

Incentive Programs Not Requiring Permit Revisions

10 CSR 10-6.065(6)(C)1.H.

No permit revision will be required for any installation changes made under any approved economic incentive, marketable permit, emissions trading, or other similar programs or processes provided for in this permit.

Reasonably Anticipated Operating Scenarios

10 CSR 10-6.065(6)(C)1.I.

The permit shall include terms and conditions for reasonably anticipated operating scenarios identified by the applicant and approved by the permitting authority. The permit shall authorize the permittee to make changes among alternative operating scenarios authorized in the permit without notice, but shall require the permittee, contemporaneous with changing from one operating scenario to another, to record in a log at the permitted installation the scenario under which it is operating. The permit shield shall apply to these terms and conditions. (§63.1206(b)(1)(ii))

On May 19, 2003 the installation petitioned to define the Alternate Mode of Operation when Hazardous Waste Time has Expired (§63.1206(b)(1)(ii)) and to Use Kiln Differential Pressure as an Indicator of Combustion Zone Pressure for Operating Requirements-Combustion System Leaks (§63.1206(c)(5))

Compliance Requirements

10 CSR 10-6.065(6)(C)3.

- I) Any document (including reports) required to be submitted under this permit shall contain a certification signed by the responsible official.
- II) Upon presentation of credentials and other documents as may be required by law, the permittee shall allow authorized officials of the Missouri Department of Natural Resources, or their authorized agents, to perform the following (subject to the installation's right to seek confidential treatment of information submitted to, or obtained by, the Air Pollution Control Program):
 - A) Enter upon the premises where a permitted installation is located or an emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
 - B) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - C) Inspect, at reasonable times and using reasonable safety practices, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
 - D) As authorized by the Missouri Air Conservation Law, Chapter 643, RSMo or the Act, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with the terms of this permit, and all applicable requirements as outlined in this permit.
- III) All progress reports required under an applicable schedule of compliance shall be submitted semiannually (or more frequently if specified in the applicable requirement). These progress reports shall contain the following:
 - A) Dates for achieving the activities, milestones or compliance required in the schedule of compliance, and dates when these activities, milestones or compliance were achieved, and
 - B) An explanation of why any dates in the schedule of compliance were not or will not be met, and any preventative or corrective measures adopted.
- IV) The permittee shall submit an annual certification that it is in compliance with all of the federally enforceable terms and conditions contained in this permit, including emissions limitations, standards, or work practices. These certifications shall be submitted annually by April 1st, unless the applicable requirement specifies more frequent submission. These certifications shall be submitted to EPA Region VII, 901 North 5th Street, Kansas City, Kansas 66101, as well as the Air Pollution Control Program,

Enforcement Section, P.O. Box 176, Jefferson City, MO 65102. All deviations and Part 64 exceedances and excursions must be included in the compliance certifications. The compliance certification shall include the following:

- A) The identification of each term or condition of the permit that is the basis of the certification,
- B) The current compliance status, as shown by monitoring data and other information reasonably available to the installation,
- C) Whether compliance was continuous or intermittent,
- D) The method(s) used for determining the compliance status of the installation, both currently and over the reporting period, and
- E) Such other facts as the Air Pollution Control Program will require in order to determine the compliance status of this installation.

Permit Shield

10 CSR 10-6.065(6)(C)6.

- I) Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements as of the date that this permit is issued, provided that:
 - A) The applicable requirements are included and specifically identified in this permit; or
 - B) The permitting authority, in acting on the permit revision or permit application, determines in writing that other requirements, as specifically identified in the permit, are not applicable to the installation, and this permit expressly includes that determination or a concise summary of it.
- II) Be aware that there are exceptions to this permit protection. The permit shield does not affect the following:
 - A) The provisions of section 303 of the Act or section 643.090, RSMo concerning emergency orders,
 - B) Liability for any violation of an applicable requirement which occurred prior to, or was existing at, the time of permit issuance,
 - C) The applicable requirements of the acid rain program,
 - D) The administrator's authority to obtain information, or
 - E) Any other permit or extra-permit provisions, terms or conditions expressly excluded from the permit shield provisions.

Emergency Provisions

10 CSR 10-6.065(6)(C)7.

- I) An emergency or upset as defined in 10 CSR 10-6.065(6)(C)7. shall constitute an affirmative defense to an enforcement action brought for noncompliance with technology-based emissions limitations. To establish an emergency- or upset-based defense, the permittee must demonstrate, through properly signed, contemporaneous operating logs or other relevant evidence, the following:
 - A) That an emergency or upset occurred and that the permittee can identify the source of the emergency or upset,
 - B) That the installation was being operated properly,
 - C) That the permittee took all reasonable steps to minimize emissions that exceeded technology-based emissions limitations or requirements in this permit, and
 - D) That the permittee submitted notice of the emergency to the Air Pollution Control Program within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and any corrective actions taken.
- II) Be aware that an emergency or upset shall not include noncompliance caused by improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

Operational Flexibility

10 CSR 10-6.065(6)(C)8.

An installation that has been issued a Part 70 operating permit is not required to apply for or obtain a permit revision in order to make any of the changes to the permitted installation described below if the changes are not Title I modifications, the changes do not cause emissions to exceed emissions allowable under the permit, and the changes do not result in the emission of any air contaminant not previously emitted. The permittee shall notify the Air Pollution Control Program and the Administrator at least seven days in advance of these changes, except as allowed for emergency or upset conditions. Emissions allowable under the permit means a federally enforceable permit term or condition determined at issuance to be required by an applicable requirement that established an emissions limit (including a work practice standard) or a federally enforceable emissions cap that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject.

- I) Section 502(b)(10) changes. Changes that, under section 502(b)(10) of the Act, contravene an express permit term may be made without a permit revision, except for changes that would violate applicable requirements of the Act or contravene federally enforceable monitoring (including test methods), record keeping, reporting or compliance requirements of the permit.
 - A) Before making a change under this provision, The permittee shall provide advance written notice to the Air Pollution Control Program and to the Administrator, describing the changes to be made, the date on which the change will occur, and any changes in emission and any permit terms and conditions that are affected. The permittee shall maintain a copy of the notice with the permit, and this agency shall place a copy with the permit in the public file. Written notice shall be provided to the administrator and this agency at least seven days before the change is to be made. If less than seven days notice is provided because of a need to respond more quickly to these unanticipated conditions, The permittee shall provide notice to the administrator and the permitting authority as soon as possible after learning of the need to make the change.
 - B) The permit shield shall not apply to these changes.

Off-Permit Changes

10 CSR 10-6.065(6)(C)9.

- I) Except as noted below, The permittee may make any change in its permitted operations, activities or emissions that is not addressed in, constrained by or prohibited by this permit without obtaining a permit revision. Insignificant activities listed in the application, but not otherwise addressed in or prohibited by this permit, shall not be considered to be constrained by this permit for purposes of the off-permit provisions of this section. Off-permit changes shall be subject to the following requirements and restrictions:
 - A) The change must meet all applicable requirements of the Act and may not violate any existing permit term or condition; The permittee may not change a permitted installation without a permit revision, if this change is subject to any requirements under Title IV of the Act or is a Title I modification;
 - B) The permittee must provide written notice of the change to the permitting authority and to the administrator no later than the next annual emissions report. This notice shall not be required for changes that are insignificant activities under paragraph (6)(B)3. of this rule. This written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change.
 - C) The permittee shall keep a record describing all changes made at the installation that result in emissions of a regulated air pollutant subject to an applicable requirement and the emissions resulting from these changes; and
 - D) The permit shield shall not apply to these changes.

Responsible Official

10 CSR 10-6.020(2)(R)12.

The application utilized in the preparation of this was signed by Doug Sisco, Plant Manager. If this person terminates employment, or is reassigned different duties such that a different person becomes the responsible person to represent and bind the installation in environmental permitting affairs, the permittee of this air contaminant source shall notify the Director of the Air Pollution Control Program of the change. Said notification shall be in writing and shall be submitted within 30 days of the change. The notification shall include the name and title of the new person assigned by the source permittee to represent and bind the installation in environmental permitting affairs. All representations, agreement to terms and conditions and covenants made by the former responsible person that were used in the establishment of limiting permit conditions on this permit will continue to be binding on the installation until such time that a revision to this permit is obtained that would change said representations, agreements and covenants.

Reopening Permit For Cause

10 CSR 10-6.065(6)(E)6.

In accordance with 10 CSR 10-6.065(6)(E)6.A., this permit may be reopened with cause if:

- I. The Missouri Department of Natural Resources receives notice from the Environmental Protection Agency (EPA) that a petition for disapproval of a permit pursuant to 40 CFR § 70.8(d) has been granted, provided that the reopening may be stayed pending judicial review of that determination,
- II. The Missouri Department of Natural Resources or EPA determines that the permit contains a material mistake or that inaccurate statements were made which resulted in establishing the emissions limitation standards or other terms of the permit,
- III. Additional applicable requirements under the Act become applicable to the installation; however, reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the installation and the installation receives authorization for coverage under that general permit,
- IV. The installation is an affected source under the acid rain program and additional requirements (including excess emissions requirements), become applicable to that source, provided that, upon approval by EPA, excess emissions offset plans shall be deemed to be incorporated into the permit; or
- V. The Missouri Department of Natural Resources or EPA determines that the permit must be reopened and revised to assure compliance with applicable requirements.

Statement of Basis

10 CSR 10-6.065(6)(E)1.C.

This permit is accompanied by a statement setting forth the legal and factual basis for the draft permit conditions (including references to applicable statutory or regulatory provisions). This Statement of Basis, while referenced by the permit, is not an actual part of the permit.

Attachment A

Fugitive Emission Observations

[illegible]

Attachment B

(Outdoor) Observation Log

Responsible Facility
Operator:

Date:

Sky Conditions:

Precipitation:

Wind Direction:

Wind Speed:

Process Unit:

Sketch process unit: indicate observer position relative to source and sun; indicate potential emission points and/or actual emission points.

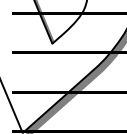
OBSERVATIONS

Begin Observation

Clock
Time

Observation Period
Duration, min:sec

Accumulated
Emission Time,
min:sec



Attachment C

This sheet or something similar may be used to help show compliance with inspection, maintenance, repair and malfunction record keeping requirements in the permit.

Inspection/Maintenance/Repair/Malfunction Log

[illegible]

Attachment D

This record keeping sheet or something similar may be used for the record keeping requirements 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*.

Opacity Emission Observations (Method 9)

Company _____
Location _____
Date _____
Time _____

Observer _____
Observer Certification Date _____
Type Facility _____
Pt. Of Emiss. _____
Control Device _____

Hour	Min	Seconds				Steam Plume (check if applicable)		Comments
		0	15	30	45	Attached	Detached	
	0							
	1							
	2							
	3							
	4							
	5							
	6							
	7							
	8							
	9							
	10							
	11							
	12							
	13							
	14							
	15							
	16							
	17							
	18							

SUMMARY OF AVERAGE OPACITY

Set Number	Time	Opacity	
	Start - End	Sum	Average

Readings ranged from ____ to ____ % opacity.

The Source was/was not in compliance with ____ at the time evaluation was made.

(Signature of Observer)

Attachment E

This sheet or an equivalent may be used to satisfy pressure drop record keeping requirements.

Pressure Drop Log for Baghouses

[illegible]

Attachment F

Maintenance/Inspection Activities Schedule and Log

[illegible]

Attachment G

Compliance Methodology Log

[illegible]

Attachment H

PM₁₀ Compliance Worksheet – Artificial Soil Program
Continental Cement Company
Ralls County, S2, T56N, R4W
Project Number: 2001-07-050
Installation ID Number: 173-0001

This sheet covers the period from _____ to _____
Month, Year Month, Year

Month	Amount of Artificial soil placement (tons) Note 1	Comp-PM ₁₀ Emission Factor (lbs/ton) Note 2	Monthly PM ₁₀ Emissions (tons) Note 3	12-Month PM ₁₀ Emissions (tons/year) Note 4
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		
		0.2596		

Note 1: Amount of artificial soil placement during this month.

Note 2: Sum of the emissions (lb/hr) / maximum hourly design rate.

Note 3: Column 1 x Column 2 x 0.0005.

Note 4: Sum of last 12-months of Column 3*.

*A 12-month Total PM₁₀ emissions of not in excess of 15 tons for Column 4 indicates compliance.

Attachment I

PM₁₀ Compliance Form

This sheet covers the period from _____ to _____
(month/year) (month/year)

[illegible]

Notes:

1. A 12-month total PM₁₀ emissions of not more than 15.0 tons indicates compliance.
2. Column III = Column I x Column II x 0.0005
3. Column IV = Column III for month + previous eleven months of Column III

STATEMENT OF BASIS

Permit Reference Documents

These documents were relied upon in the preparation of the operating permit. Because they are not incorporated by reference, they are not an official part of the operating permit.

- 1) Part 70 Operating Permit Application, received March 14, 1997
- 2) 2001 Emissions Inventory Questionnaire received March 30, 2002;
- 3) U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*; Volume I, Stationary Point and Area Sources, Fifth Edition.

Applicable Requirements Included in the Operating Permit but Not in the Application

In the operating permit application, the installation indicated they were not subject to the following regulation(s). However, in the review of the application, the agency has determined that the installation is subject to the following regulation(s) for the reasons stated.

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*

This rule has not been promulgated at the time of the application; however, it has been determined to be applicable to the installation and, therefore, has been included in the operating permit.

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants from Portland Cement Manufacturing Industry*

This rule has not been promulgated at the time of the application; however, it has been determined to be applicable to the installation and, therefore, has been included in the operating permit.

10 CSR 10-6.100, *Alternative Emission Limits*

This rule has been included in the operating permit because the rule is a core permit requirement.

10 CSR 10-6.130, *Controlling Emissions During Episodes of High Air Pollution Potential*

This rule has been included in the operating permit because the rule is a core permit requirement.

10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

This rule has not been created at the time of the application; however, it has been determined to be applicable to the installation and, therefore, has been included in the operating permit.

10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*

This rule had not been addressed in the application; however, it has been determined to be applicable to the installation and, therefore, has been included in the operating permit.

10 CSR 10-6.220, *Restriction of Emission of Particulate Matter from Industrial Processes*

This rule has not been created at the time of the application; however, it has been determined to be applicable to the installation and, therefore, has been included in the operating permit.

40 CFR Part 82, *Protection of Stratospheric Ozone*

This rule has been included in the operating permit because the rule is a core permit requirement.

Other Air Regulations Determined Not to Apply to the Operating Permit

The Air Pollution Control Program (APCP) has determined the following requirements to not be applicable to this installation at this time for the reasons stated:

10 CSR 10-3.050, *Restriction of Emission of Particulate Matter from Industrial Processes*

This rule has been rescinded and been replaced by 10 CSR 10-6.400

10 CSR 10-3.080, *Restriction of Emission of Visible Air Contaminants*

This rule has been rescinded and been replaced by 10 CSR 10-6.220

10 CSR 10-6.350, *Emission Limitation and Emission Trading of Oxides of Nitrogen*

This rule is not applicable because Continental Cement is not a fossil fuel-fired electric generating unit.

Construction Permit Revisions

The following revisions were made to construction permits for this installation:

1) *Construction Permit # 1086-004D*

On August 6, 2003, the installation was issued an amendment to Special Condition # 7 of the Construction Permit # 1086-004C. The condition was revised to initially establish the maximum amounts of liquid waste and total hazardous waste that can be fed to the kiln based on data from a 1992 Boiler and Industrial Furnace (BIF) trial burn. The condition was also revised to allow alternate feed limits validated by future compliance tests to replace existing limits.

2) *Construction Permit # 1086-004C*

Special Condition # 7 of this permit was amended through the Construction Permit # 1086-004D

3) *Construction Permit # 1086-004B*

The conditions of this permit were superseded by the conditions of Construction Permit # 1086-004C.

4) *Construction Permit # 1086-004A*

The conditions of this permit were superseded by the conditions of Construction Permit # 1086-004C.

5) *Construction Permit # 1086-004*

The conditions of this permit were superseded by the conditions of Construction Permit # 1086-004C.

6) *Construction Permit # 092002-022*

This is a construction permit for a construction of a new kiln. The installation requested that the construction permit be listed, however, no provisions of the construction permit were incorporated into the Part 70 permit, because no construction was done yet.

7) *Construction Permit Number 122001-014*

The Special Condition was gap-filled as follows: "The permittee shall monitor the amount of artificial soil replacement and maintain records on the PM₁₀ emissions on a rolling 12-month basis." Was added to the Monitoring and Record Keeping of Permit Condition EU0470-01 through EU0510-01.

NSPS Applicability

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR 60, Subpart K, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978*

The requirements of this part apply to storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after June 11, 1973 and prior to May 19, 1978. There are no storage vessels on site that meet the criteria of this subpart. (see table below)

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR 60, Subpart K_a, *Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978 and Prior to July 23, 1984*

The requirements of this part apply to storage vessels for petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984. There are no storage vessels on site that meet the criteria of this subpart. (see table below)

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR 60, Subpart K_b, *Standards of Performance for Storage Vessels for Volatile Organic Liquid Storage Vessels (Including Petroleum Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984*

The requirements of this part apply to any liquid hazardous waste storage tank operated on premises of Continental Cement Co. Continental Cement is required to follow the regulations of this part.

Burn Tanks #1, #2 and Syn fuel storage tanks #1 through #6 are subject to Subpart K_b. Since the applicability date and minimum volume are July 24, 1984 and 40 cubic meters (m³) respectively, the rule does/does not apply to Diesel fuel tank, Bulk oil storage tank, Waste oil storage tank, Unleaded gasoline tank or Grinding aid tank.

Continental Cement Tanks

Tank No.	Location	Contents	Size (gal)	Year Inst.	Subpart K _b applicability
1	Syn fuel storage tank #1	HWDF	25,000	1986	Yes
2	Syn fuel storage tank #2	HWDF	25,000	1986	Yes
3	Syn fuel storage tank #3	HWDF	25,000	1986	Yes
5	Syn fuel storage tank #4	HWDF	25,000	1986	Yes
6	Syn fuel storage tank #5	HWDF	25,000	1986	Yes
7	Syn fuel storage tank #6	HWDF	25,000	1986	Yes
8	Supplemental fuel burn tank#1	HWDF	75,000	1990	Yes
9	Supplemental fuel burn tank#1	HWDF	75,000	1990	Yes
10	Diesel fuel tank	Diesel	20,000	1966	No
17	Bulk oil storage tank	Oil	6,000	1990	No
18	Waste oil portable totes	Waste oil	50-6,000	1990	No
19	Unleaded gasoline tank	Gasoline	250	1966	No
20	Grinding aid tank	Blended glycols	6,000	1966	No
21	Diesel tank (stores)	Diesel	250	1990	No
22	Diesel tank (packhouse)	Diesel	150	1966	No
23	Diesel tank (generator)	Diesel	500	1966	No
24	Diesel tank (firepump)	Diesel	300	2003	No

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR 60, Subpart F, *Standards of Performance for Portland Cement Plants*

From 67 16619, Apr 5: "Section 63.1356(a) of the final rule is being revised to clarify that in exempting affected sources subject to the portland cement NESHAP from duplicative requirements under 40 CFR part 60, subpart F, it was not our intention that these sources would then become affected sources under the

requirements of 40 CFR part 60, subpart OOO (NSPS for Nonmetallic Mineral Processing Plants). The requirements of 40 CFR part 60, subpart OOO may apply to certain sources at a portland cement plant depending on whether or not 40 CFR part 60, subpart F, applies to that source. In particular, 40 CFR 60.670(b) states that if an emission source is subject to 40 CFR part 60, subpart F, or follows in the plant process a source that is subject to subpart F, then 40 CFR part 60, subpart OOO does not apply to that source. The purpose of Sec. 63.1356(a) of the final rule is to avoid having a source that is subject to certain requirements under this subpart also be subject to the same requirements under 40 CFR part 60, subparts F or OOO. The list of affected sources in the portland cement NESHAP is being amended by combining into one paragraph the affected sources, "bagging system" and "bulk loading or unloading system," making the rule language consistent with the NSPS for portland cement plants (40 CFR part 60, subpart F)." All emission points subject to 40CFR 63 Subpart LLL, section 63.1356(a) are exempted from 40 CFR 60 Subpart F, thus subpart F is not applicable.

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR 60, Subpart Y, *Standards of Performance for Coal Preparation Plants*

Any facility affected that commences construction or modification after October, 24, 1974, is subject to the requirements of Subpart Y. All of the units used in coal preparation were constructed in 1966 thus Subpart Y does not apply.

Subpart Y does not apply to transfer of coal from a coal mill to the kiln. From 67 16619, Apr 5: "Section 63.1356 of the final rule is being revised to clarify that the systems used to convey and transfer coal from the coal mill to the kiln at portland cement plants that are major sources of HAP are not subject to the NSPS for coal preparation plants (40 CFR part 60, subpart Y). The final portland cement NESHAP already cover conveying system transfer points associated with coal preparation plants at portland cement plants that are major sources. There is no need for these sources to be subject to duplicative requirements, i.e., to also be covered by the NSPS for coal preparation plants. Further, these emission sources will be subject to more stringent opacity requirements (10 percent) under the NESHAP than under the NSPS for coal preparation plants (40 CFR part 60, subpart Y). Other coal conveying transfer points will continue to be subject to the NSPS for coal preparation plants."

10 CSR 10-6.070, *New Source Performance Regulations*

40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants*

The provisions of Subpart OOO are applicable to: each crusher, grinding mill, screening operation, bucket elevator, belt. The only emissions points that Subpart OOO would be applicable are listed in the table below. Only facilities that commenced construction, reconstruction or modification after August 31, 1983 are subject to this rule. Since all the units in the table below were constructed in 1966, Subpart OOO does not apply.

Description	EIQ Point	Year
Raw Material Unloading	RM-8	1966
Primary Crusher	RM-9	1966
Conveying Transport Point	RM-10	1966
Crushed Limestone Reclaim Hopper	RM-11	1966
Raw Material Conveyor	RM-12	1966
Raw Material Conveyor	RM-13a	1966

MACT Applicability

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*

40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*

The provisions of this subpart apply to all hazardous waste combustors: hazardous waste incinerators, hazardous waste burning cement kilns and hazardous waste burning lightweight kilns. Since Continental Cement utilizes hazardous liquid and solids as a fuel source the part is fully applicable.

Continental Cement is a wet process kiln that utilizes Electrostatic Precipitator (ESP) as a control emission unit on its kiln exhaust. There is no mid-kiln sampling point. 40 CFR 63, Subpart EEE covers variety of sampling techniques and emission control options (i.e. activated carbon injection, baghouses, sampling at the kiln exhaust, etc.). Regulatory text contained in the permit was limited only to the options applicable to Continental Cement's facility.

The original version of the MACT was published in Federal Register, vol. 64, NO. 189 on September 30, 1999. Since then, there were several revisions to the MACT. A timeline of changes is presented below:

Original FR, vol. 64, No.189, September 30, 1999

Amended: FR, vol. 64, November 19, 1999
FR, vol. 65, No.132, June 10, 2000
FR, vol. 65, No. 218, November 09, 2000
FR, vol. 66, No. 93, May 14, 2001
FR, vol.66, No. 128, July 03, 2001
FR, vol. 66, No. 228, October 16, 2001
FR, vol. 66, No. 235, December 06, 2001
FR, vol. 67, No.30, February 13, 2002
FR vol. 67, No. 31, February 14, 2002
FR, vol 67, No. 244, December 19, 2002

On February 13, 2002 and February 14, 2002 EPA published interim rules in response to a court imposed remand of parts of the regulation. The rules are applicable until a new version of MACT is finalized (projected for 1995). This permit incorporates all of the changes to the MACT wording since September 30, 1999.

After 40 CFR Part 63, Subpart EEE is revised, the installation will be subject to the revised standards. For an operating permit with an expiration date more than three (3) years away, the permit should be reopened to incorporate the new requirements. The mechanism for this reopening, under the current Part 70 rules, would be a "reopening for cause", upon rule modifications in the federal register. The changes to the permit will be made as expeditiously as possible, but no later than eighteen (18) months. As long as the installation is meeting the requirements of the revised rule, it is deemed to be in compliance. The Air Pollution Control Program will not view the installation as being in violation of the operating permit if the installation is complying with the revisions to a Federal or State Statute or Regulation, as published in the Federal Register or Missouri Register.

Continental Cement applied and was granted a one (1) year extension on 40 CFR 63, Subpart EEE compliance on August 05, 2003. Based on the Compliance Extension letter Continental Cement Co. must comply with all provisions of 40 CFR 63, Subpart EEE no later than September 30, 2004.

Alternate Standard Provision:

On May 19, 2003, Continental Cement petitioned the Air Pollution Control Program to "Define Alternate Mode of Operation When Hazardous Waste Residence Time has Expired - §63.1206(b)(1)(ii)". Continental Cement proposed the following wording for the Alternate Standard Provision; "If the kiln is not burning hazardous waste, the permittee may comply with the alternate mode of operation defined in the Comprehensive Performance Test Plan defined as follows:

"Mode B, where the Operational Parameter Limits for: minimum combustion zone temperature, maximum production rate, maximum hazardous waste feed rate; and the Performance Standards for: SVMs, LVMs, HCl & CL, CO, and HG; will no longer apply to the kiln system. For the Dioxin/Furan Standard, compliance with the Operational Parameter Limit for maximum Air Pollution Control Device (APCD) inlet temperature will be determined by calculated three-hour rolling average of recorded one-minute averages. All Subpart EEE standards and regulations not specifically mentioned in this paragraph will remain in effect."

The petition was approved on December 16, 2003, thus the above language is being placed in the body of the permit under Alternate Standard Provision heading.

Continental Cement will operate parts of the installation under either 40 FR 63 Subpart EEE or 40 FR 63 Subpart LLL. Continental Cement requested the flexibility to switch between the EEE operation mode and an alternate operation mode as defined in the Initial Comprehensive Test Plan.

10 CSR 10-6.075, *Maximum Achievable Control Technology Regulations*
40 CFR Part 63, Subpart LLL, *National Emission Standards for Hazardous Air Pollutants From the Portland Cement Manufacturing Industry*

- The provisions of this subpart apply to each new and existing portland cement plant that is a major or an area source. The affected sources subject to this regulation are:
- Each kiln and each in-line kiln/raw mill at any major or area source, including alkali bypasses, except for kilns and in-line kiln/raw mills that burn hazardous waste and are subject to and regulated under subpart EEE of this part;
- Each clinker cooler at any portland cement plant that is a major source;
- Each raw mill at any portland cement plant that is a major source;
- Each finish mill at any portland cement plant that is a major source;
- Each raw material dryer at any portland cement plant that is a major source and each greenfield raw material dryer at any portland cement plant that is a major or area source;
- Each conveying system transfer point at any portland cement plant that is a major source;
- Each bagging system at any portland cement plant that is a major source; and
- Each bulk loading or unloading system at any portland cement plant that is a major source;
- The installation is a major source of HAPs, and therefore the clinker cooler, finish mills, conveying system transfer points, bagging systems and bulk loading /unloading systems are covered by the MACT. For the rotary kiln, the provisions of 40 CFR Part 63, Subpart EEE, *National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors*, are to be followed.

According to 40 CFR Part 63, Subpart LLL – The first source affected are the raw material storage just prior to the raw mill. If the emission units are not the raw material storage prior to the raw mill, the emission units are not covered by LLL:

“...the first affected source in the sequence of materials handling operations subject to this NESHAP is the raw material storage, which is just prior to the raw mill. The primary and secondary crushers and any other equipment in the non-metallic mineral processing plant, which precede the raw material storage are not affected sources under this NESHAP. The first

conveyor system transfer point subject to this NESHAP is the transfer point associated with the conveyor transferring material from the raw material storage to the raw mill.”

Based on this definition, since the facility does not utilize a raw mill (wet slurry operation) the first emission units affected by 40 CFR Part 63 are the kiln dust processing units.

63 CFR Subpart LLL in §63.1350(a)(4)(v) states the following: The requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. The following points are totally enclosed:

CG-9e	hopper conveyor
CG-9f	conveyor to elevator transfer point
CG-9g	coal transfer (rail) - elevator to belt conveyor MBE-1/MBC-2
CG-12	coal transfer point - elevator to coal conveyor MBE-1/MBC-3
CG-12a	coal transfer point - conveyor to conveyor MBC-3/MBC-4
CG-12b	coal transfer point - conveyor to conveyor MBC-4/MBC-5
CG-13	coal transfer point - conveyor to silo MBC-4/Coal Silo
CG-14	gypsum transfer point - elevator to conveyor MBE-1/MBC-3
CG-14a	gypsum transfer point - conveyor to conveyor MBC-3/MBC-4
CG-14b	gypsum transfer point - conveyor to silo MBC-4/MBC-5
CG-14c	gypsum transfer point - conveyor MBC-5 to Bin 1
CG-14d	gypsum transfer point - conveyor MBC-6 to Bin 2
RM-19	transfer, secondary crusher to conveyor to mill clay
RM-21	clay storage pile - underground

If any partially enclosed or unenclosed conveying system transfer point is located in a building, the permittee of the portland cement plant shall have the option to conduct a Method 22 visible emissions monitoring test according to the requirements of §63.1350(a)(4)(i) through (iv) for each such conveying system transfer point located within the building, or for the building itself, according to §63.1350 (a)(4)(vii).

If visible emissions from a building are monitored, the requirements of §63.1350(a)(4)(i) through (iv) apply to the monitoring of the building, and you must also test visible emissions from each side, roof and vent of the building for at least one minute. The test must be conducted under normal operating conditions.

The following emission units are located within the “mill building” CG-10j

CG-15	gypsum bin 1 and 2
CG-16	gypsum transfer - bins onto belt conveyor
RM-14	transfer point (tripper) to raw materials storage silos
RM-14a	limestone silos
RM-14b	clay silos
RM-15	transfer to secondary crusher, conveyor, limestone
RM-16	transfer, secondary crusher to conveyor to mill, limestone
RM-17	transfer, conveyor to mill, raw material
RM-18	transfer to secondary crusher, conveyor, clay

The following emission units are located within the “syn-gyp process building” SG-10

SG-5	loading hopper
SG-6	transfer - hopper to belt conveyor
SG-7	transfer - belt conveyor to agglomerator
SG-8	transfer - agglomerator discharge to stacker belt conveyor
SG-9	transfer - stacker to storage pile

10 CSR 10-6.075, Maximum Achievable Control Technology Regulations
40 CFR Part 63, Subpart DD, *National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations*

The installation is not subject to 40 CFR Part 63, Subpart DD, due to the exemption stated in §63.683(c)(1).
According to §63.683(c)(1):

“An off-site material management unit is exempted from the requirements specified in §63.683(b), if the unit is also subject to another subpart under 40 CFR Part 61 or 40 CFR Part 63, and the owner or operator is controlling the HAP listed in Table 1 of this subpart that are emitted from the unit in compliance with the provisions specified in the other applicable subpart.”

According to §63.680(b)(2)(vi), the following materials are not off-site materials:

“Waste that is generated by or transferred from units complying with all applicable requirements specified by 61.342(b) under 40 CFR 61 subpart FF – National Emission Standards for Benzene Waste Operations for a facility at which the total annual benzene quantity from the facility waste is equal to or greater than 10 megagrams per year.”

The off-site waste is placed in hazardous waste storage tanks complying with 40 CFR Part 61, Subpart FF, therefore when the waste leaves these storage tanks or is “transferred from” these units complying with 40 CFR Part 61, Subpart FF, the waste is no longer off-site waste.

According to the July 1, 1996 Preamble:

“Some NESHAP already regulate air emissions from the off-site management of certain wastes containing HAP. To avoid duplication of requirements in these cases, the Off-Site Waste and Recovery Operations NESHAP does not apply to waste management units that either receive waste from units complying with all applicable regulations under the HON, or receive waste from units complying with all applicable requirements specified by §61.342(b) under 40 CFR Part 61, Subpart FF – National Emission Standards for Benzene Waste Operations for a plant at which the total annual benzene quantity is greater than or equal to ten (10) Mg/yr.”

The cement kiln and the hazardous waste storage tanks are complying with 40 CFR Part 61, Subpart FF, therefore the requirements for 40 CFR Part 63, Subpart DD were not included in the operating permit.

40 CFR Part 63, Subpart B, *Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Section 112(g) and 112(j)*

Continental Cement submitted Phase 1 Notification. It was determined that no provisions of 112(j) are applicable because Continental Cement Co. does not operate any equipment covered by the regulation.

NESHAP Applicability

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*,
40 CFR, Part 61, Subpart FF, National Emission Standards for Benzene Waste Operation
As a Benzene waste processing facility Continental Cement is required to comply with the provisions of this rule.

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*
40 CFR Part 61, Subpart M, *National Emission Standard for Asbestos*
The installation is subject to the requirements of 40 CFR Part 61, Subpart M.

10 CSR 10-6.080, *Emission Standards for Hazardous Air Pollutants*
40 CFR Part 61, Subpart V, *National Emission Standard for Equipment Leaks (Fugitive Emission Sources)*

The provisions of this subpart apply to each of the following sources that are intended to operate in volatile hazardous air pollutant (VHAP) service: pumps, compressors, pressure relief devices, sampling connection systems, open-ended valves or lines, valves, flanges and other connectors, product accumulator vessels, and control devices or systems required by this subpart.

40 CFR Part 63, Subpart DD references Subpart V, however as stated previously, the installation is not subject to the requirements of 40 CFR Part 63, Subpart DD. The installation is subject to 40 CFR Part 61, Subpart M and Subpart FF and neither subpart references Subpart V. Therefore, the installation is not subject to the requirements of 40 CFR Part 61, Subpart V and it was not included in the operating permit.

Other Regulatory Determinations

10 CSR 10-6.400, Restriction of Emission of Particulate Matter from Industrial Processes

Unit No.	2000 EIQ Point	Description	Control Device	Manufact	Year	Point	MHD R	Effc.	EF	Source	SCC	Unc. Lb/hr	Cont. lb/hr	10-6.400 lb/hr
EU0010	KP-1	cement kiln	ESP	Amer. Air	1966	(1)								
EU0020	CM-1	clinker cooler	KDC - 5	Amerex	1966	PM								
EU0030	CM-1a	dust collector discharges to apron pan conveyor	KDC - 5	Amerex	1966	PM	89.1	89.46	0.150	Fire	-12	13.37	1.4	50.12
EU0040	CM-2	clinker transfer drag to apron pan conveyor	KAP - 1	Fuller	1966	PM	89.1	89.46	0.150	Fire	-12	13.37	1.4	50.12
EU0050	CM-2a	dust collector discharges to apron pan conveyor	SC-3	Fuller	1966	PM	89.1	89.46	0.150	Fire	-12	13.37	1.4	50.12
EU0060	CM-3	clinker apron pan conveyor transfer point to bucket elevator	KAP - 2	Fuller	1966	PM	89.1	89.46	0.150	Fire	-12	13.37	1.4	50.12
EU0070	CM-4a	clinker transfer - east elevator to belt conveyor	KDC-1B	DCE Vokes	1966	PM	89.1	89.46	0.150	Fire	-12	13.37	1.4	50.12
EU0080	CM-4	clinker transfer - west elevator to belt conveyor	KDC-1A	DCE Vokes	1966	PM	89.1	89.46	0.024	Fire	-16	2.138	0.2	50.12
EU0090	CM-4b	clinker transfer - east belt conveyor to north tripper belt	KDC-1D	DCE Vokes/ BHA	1966	PM	89.1	89.46	0.024	Fire	-16	2.138	0.2	50.12
EU0100	CM-4c	clinker transfer - west belt conveyor to south tripper belt	KDC-1C	DCE Vokes/ BHA	1966	PM	89.1	89.46	0.024	Fire	-16	2.138	0.2	50.12
EU0110	CM-12c	clinker hopper	-		1966									
EU0120	CM-7a	clinker transfer - hopper to conveyor belt			1966									
EU0130	CM-7b	clinker transfer - conveyor belt to elevator	KDC-3	DCE Vokes	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12
EU0140	CM-8	clinker storage silos - F Silos	KDC-3	DCE Vokes	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12
EU0150	CM-8a	clinker storage silos - North Silos	KDC-1	DCE Vokes	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12
EU0160	CM-8b	clinker storage silos - South Silos	KDC-2	DCE Vokes	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12
EU0170	CM-8c	clinker storage silos - North interstices	FDC-1F	BHA	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12
EU0180	CM-8d	clinker storage silos - South interstices	FDC-2F	BHA	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12
EU0190	CM-	clinker weighing and	FDC-	Flex -Kleen	1966	PM	89.1	37.5	0.024	Fire	-16	2.138	1.3	50.12

	9.1a,b,c; 2a,b,c	transfer - mill 1-2	1a,b,c/FCC -2a,b,c											
EU0200	CM-10	clinker grinding (mill # 1)	FDC-1E	BHA	1966	PM	75	99.35	0.008	Fire	-17	0.6	0.004	48.43
EU0210	CM-10a	finish Mill #1 Elevator	O-Sepa - IDC	Fuller	1966	PM	75	99.35	0.009	Fire	-28	0.705	0.005	48.43
EU0220	CM-10c	finish mill #1 air separator	O-Sepa - IDC	Fuller	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0230	CM-10d	finish mill #1 - surge bin	O-Sepa - IDC	Fuller	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0240	CM-10e	finish mill #1 - 1G fringe bin	FDC-1 A	Flex -Kleen	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0250	CM-10.1	clinker grinding (mill # 2)	FDC-2E	BHA	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0260	CM-10F	finish mill #2 - elevator	O-Sepa - 2DC	Fuller/BHA	1966	PM	75	99.35	0.008	Fire	-27	0.6	0.004	48.43
EU0270	CM-10g	finish mill #2 air separator	O-Sepa - 2DC	Fuller/BHA	1966	PM	390	99.35	0.009	Fire	-28	3.666	0.02	66.02
EU0280	CM-10h	finish mill #2 - surge bin	O-Sepa - 2DC	Fuller/BHA	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0290	CM-10i	finish mill #2 - 2G fringe bin	FDC-2 A	Flex -Kleen	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0300	CM-11	clinker reclaim elevator	KDC-3	BHA	1966	PM	390	99.35	0.028	Fire	-29	10.92	0.07	66.02
EU0310	CM-12	clinker transfer tripper to clinker storage pile	KDC-5		1966	PM								
EU0320	SH-1	cement storage - stockhouse #6	XDC - 1	Torit	1966	PM	175	99.0	0.40	Fire	-19	30.0	0.3	57.07
EU0330	SH-2	cement storage silos	CDC 1	BHA	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0340	SH-2	cement storage silos	CDC-2	BHA	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0350	SH-2	cement storage silos	CDC-3	BHA	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0360	SH-2	cement storage silos	CDC-4	BHA	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0370	SH-2	cement storage silos	CDC-5	BHA	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0380	SH-2	cement storage silos	CDC-6	BHA	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0390	SH-3	cement transfer - silos into pump/air slide system	CDC 9,10	Flex - Kleen	1966	PM	100	99.0	0.40	Fire	-19	40.0	0.4	51.28
EU0400	SH-4	cement handling - bulk truck loading lines	CDC 11,12	Flex - Kleen	1966	PM	300	99.0	0.40	Fire	-19	120	0.1	63.00
EU0410	SH-5	cement handling - bulk railcar loading lines	CDC 13,15	W. W. Sly	1966	PM	300	99.0	0.40	Fire	-19	120	0.1	63.00
EU0420	SH-7	cement storage silos	BDC - 1	Dustex	1966	PM	100	99.0	0.40	Fire	-19	40	0.4	51.28
EU0430	SH-8	cement barge loading	BLDC - 1	Fuller	1966	PM	2200	99.0	0.40	Fire	-19	880	8.8	88.24
EU0440	SH-9	cement barge loading	BLDC - 2	Fuller	1966	PM	2200	99.0	0.40	Fire	-19	880	8.8	88.24

40 CFR 63.2 *Definitions* defines the Potential to Emit as: "... the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable."

Potentials to emit presented in the above table were calculated based on sources Maximum Hourly Design Rate (MHDR). All emission factors used are for an uncontrolled total particulate matter (PM).

Sample of calculations for EU0220 Finish Mill#1 Air Separator (EP: CM-10c)

Uncontrolled emission rate = MHDR * Emission Factor = 390 [ton/hr] * 0.028 [lbs/ton] = 10.92 lbs/hr

10 CSR10-6.400 limit for EU0220 is calculated using the following equation:

$$E = 55.0 * E^{0.11} - 40 = 55.0 * (390)^{0.11} - 40 = 66.02 \text{ lbs/hr}$$

The uncontrolled emission rate at MHDR is 10.92 lbs/hr while the regulatory limit of 10CSR10-6.400 is 66.02 lbs/hr. Since the potential emissions is below the 10 CSR 6.400 *Restriction of Emission of Particulate Matter from Industrial Processes* limit the installation is required to maintain calculations for the process for emission unit EU0220. Using the same reasoning, we ask the installation to maintain on file calculation for emission units EU0030 through EU0100, EU0130 through EU0300, EU0320 through EU0390 and EU0420. (Please see the table above for numerical details)

For emission points EU0400, EU0410, EU430 and EU440 the uncontrolled emissions exceed the 10CSR10-6.400 limit. However, the controlled emissions are far below the regulatory limit. In order to assure that the installation meet the regulatory requirement we ask the permittee to monitor the corresponding emission control equipment and adhere to record keeping and reporting requirements. The rationale behind this request is that in case of the control equipment failing the installation would very likely emit far in excess of the limit. Periodic monitoring of the equipment will assure its proper working conditions.

10CSR 10-6.400(3)(A)4 limits the concentration of particulate matter to 0.30 grains per standard cubic foot of exhaust gases. The limit is applicable to the points listed below. Data for the controlled potential were taken from previous table. As shown in the table below all affected emission units have emissions less than 0.3 grains/standard cubic foot.

Sample of calculations for EU0220 Finish Mill#1 Air Separator (EP: CM-10c). Calculations for other affected points are synonymous.

$$[0.07 \text{ lb/hr} / 60 \text{ min/hr}] * [7000 \text{ grains/lb}] = 8.2 \text{ grains/min}$$

$$[8.2 \text{ grains/min}] / [1200 \text{ stdft}^3/\text{min}] = 0.007 \text{ grains/stdft}^3$$

stdft³ indicates a (standard cubic foot)

all flowrates are at Standard temperature (70°F) and standard pressure (14.7 psi)

EU	Description	Controlled Potential [lb/hr]	Flow [stdft ³ /min]	Controlled Potential [grains/min]	Controlled Potential [grains/stdft ³]
EU0030	dust collector discharges to apron pan conveyor	1.4	1200	163.3	0.14
EU0040	clinker transfer drag to apron pan conveyor	1.4	1200	163.3	0.14
EU0050	dust collector discharges to apron pan conveyor	1.4	1200	163.3	0.14
EU0060	clinker apron pan conveyor transfer point to bucket elevator	1.4	1200	163.3	0.14
EU0070	clinker transfer - east elevator to belt conveyor	1.4	1000	163.3	0.16
EU0080	clinker transfer - west elevator to belt conveyor	0.2	2000	23.3	0.01
EU0090	clinker transfer - east belt conveyor to north tripper belt	0.2	1200	23.3	0.02
EU0100	clinker transfer - west belt conveyor to south tripper belt	0.2	5000	23.3	0.005

EU0130	<i>clinker transfer – conveyor belt to elevator</i>	1.3	1500	151.7	0.1
EU0140	<i>clinker storage silos- F Silos</i>	1.3	2000	151.7	0.08
EU0150	<i>clinker storage silos - North Silos</i>	1.3	2000	151.7	0.08
EU0160	<i>clinker storage silos - South Silos</i>	1.3	5000	151.7	0.03
EU0170	<i>clinker storage silos - North interstices</i>	1.3	5000	151.7	0.03
EU0180	<i>clinker storage silos - South interstices</i>	1.3	5000	151.7	0.03
EU0190	<i>clinker weighing and transfer - mill 1-2</i>	1.3	5000	151.7	0.03
EU0200	<i>clinker grinding (mill # 1)</i>	0.004	3000	0.5	0.0001
EU0210	<i>finish Mill #1 Elevator</i>	0.005	3000	0.6	0.0002
EU0220	<i>finish mill #1 air separator</i>	0.07	1200	0.8	0.0007
EU0230	<i>finish mill #1 - surge bin</i>	0.07	1000	0.8	0.0008
EU0240	<i>finish mill #1 - 1G fringe bin</i>	0.07	1200	0.8	0.0007
EU0250	<i>clinker grinding (mill # 2)</i>	0.07	1200	0.8	0.0007
EU0260	<i>finish mill #2 - elevator</i>	0.004	1000	0.5	0.0005
EU0270	<i>finish mill #2 air separator</i>	0.02	1000	2.3	0.008
EU0280	<i>finish mill #2 - surge bin</i>	0.07	1000	8.2	0.008
EU0290	<i>finish mill #2 - 2G fringe bin</i>	0.07	1200	8.2	0.007
EU0300	<i>clinker reclaim elevator</i>	0.07	1200	8.2	0.007
EU0320	<i>cement storage - stockhouse #6</i>	0.3	1200	35.0	0.03
EU0330	<i>cement storage silos</i>	0.4	1000	46.7	0.04
EU0340	<i>cement storage silos</i>	0.4	1000	46.7	0.03
EU0350	<i>cement storage silos</i>	0.4	1500	46.7	0.03
EU0360	<i>cement storage silos</i>	0.4	1200	46.7	0.04
EU0370	<i>cement storage silos</i>	0.4	1200	46.7	0.04
EU0380	<i>cement storage silos</i>	0.4	1200	46.7	0.04
EU0390	<i>cement transfer - silos into pump/air slide system</i>	0.4	1200	46.7	0.04
EU0400	<i>cement handling - bulk truck loading lines</i>	0.1	1000	11.7	0.1
EU0410	<i>cement handling - bulk railcar loading lines</i>	0.1	1000	11.7	0.1
EU0420	<i>cement storage silos</i>	0.4	1200	46.7	0.04
EU0430	<i>cement barge loading</i>	8.8	5000	1026.7	0.2
EU0440	<i>cement barge loading</i>	8.8	5000	1026.7	0.2

Emission Units Without Limitation

The sources listed as units without limitation in this permit fall into two categories.

Fugitive sources, which do not emit regulated pollutants from a discrete stack or vent. These sources emit particulate matter and volatile organic compounds directly into the ambient air. These sources do not have any type of capture/control devices and are not covered or required to control their emissions based on any past or current regulations. These sources are not subject to any specific rule except the installation wide requirement of 10 CSR 10-6.170 and must comply with this requirement. Storage piles and haul roads are included in that category.

The following storage piles and haul roads were placed in the Emission Units Without Limitations category:

2000 EIQ

Point	Description
CG-2A	haul road unpaved - coal barge and truck to coal stockpile
CG-2B	haul road paved - coal barge and truck to coal stockpile
CG-3A	haul road unpaved - clinker barge and truck to stockhouse 5
CG-3B	haul road paved - clinker barge and truck to stockhouse 5
CG-3D	haul road unpaved - coal truck and barge plant entrance to stockhouse 5
CG-3E	haul road paved - coal truck and barge plant entrance to stockhouse 5
CG-3C	haul road unpaved - clinker truck to hopper
CG-4	coal storage pile (staging)
CG-5	haul road - coal stockpile to hopper
CG-6A	haul road unpaved - gypsum - plant entrance to stockhouse 5
CG-6B	haul road paved - gypsum - plant entrance to stockhouse 5
CG-7	gypsum storage pile
CG-8	haul road - unpaved gypsum from stockhouse 5 to hopper
CG-11	haul road - coal transfer to coal storage pile CG-4
CG-17	coal/coke storage pile
CG-18	haul road (unpaved) plant entrance to outdoor storage pile
CG-19	Synthetic Gypsum Storage Pile - outdoor
CG-20	haul road - unpaved, Synthetic Gypsum Storage Pile to hopper
RM-5A	haul road unpaved - plant entrance to stockhouse 5 clay
RM-5B	haul road paved - plant entrance to stockhouse 5 clay
RM-20	haul road, unpaved - plant entrance to underground mine
RM-20a	haul road, unpaved - plant entrance to clay storage pile
RM22	clay storage pile (outdoor)
RM-23	haul road, unpaved - clay storage pile to primary crusher
RM-7	haul roads - stockhouse 5 to primary crusher - clay
RM-20	haulroad unpaved - plant entrance to underground mine - clay
RM-20a	haulroad unpaved - plant entrance to outdoor clay storage pile
RM-22	outdoor clay storage pile
RM-23	haulroad unpaved - clay storage piles to primary crusher
KP-4	haul road - waste dust to landfill
KP-5	waste dust truck un-loading at landfill
KP-7	waste dust storage pile at landfill
CM-6	haul road - clinker from stockhouse 5 to hopper
CM-14	haul road - outside stockpile to stockhouse 5
CM-15	outside clinker storage piles using combined emission factor
CM-14	haul road - outside stockpile to stockhouse 5
CM-15	outside clinker storage piles
SG-12	haul road to storage pile
SG-13	storage pile
SG-15	haul road to highway

1. The provisions of Subpart OOO are applicable to: each crusher, grinding mill, screening operation, bucket elevator, belt. The only emissions points that Subpart OOO would be applicable are listed in the table below.

Only facilities that commenced construction, reconstruction or modification after August 31, 1983 are subject to this rule. Since all the units in the table below were constructed in 1966, Subpart OOO does not apply. Since the units have no emission controls 10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants, does not apply to these units either. Thus, the only applicable rule is the installation wide requirement of 10 CSR 10-6.170 which the installation is required to comply with.

Description	EIQ Point	Year
Raw Material Unloading	RM-8	1966
Primary Crusher	RM-9	1966
Conveying Transport Point	RM-10	1966
Crushed Limestone Reclaim Hopper	RM-11	1966
Raw Material Conveyor	RM-12	1966
Raw Material Conveyor	RM-13a	1966

2. There are no applicable rules for these points except for the installation wide requirement of 10 CSR 10-6.170 which the installation is required to comply with.

2000 EIQ

Point	Description
RM-1	quarries - drilling
RM-2	quarries - blasting
RM-3	quarries - loading haul trucks
RM-4A	haul roads - quarries to primary crusher
RM-4B	haul roads - quarries to primary crusher

63 CFR Subpart LLL in §63.1350(a)(4)(v) states the following: The requirement to conduct Method 22 visible emissions monitoring under this paragraph shall not apply to any totally enclosed conveying system transfer point, regardless of the location of the transfer point. "Totally enclosed conveying system transfer point" shall mean a conveying system transfer point that is enclosed on all sides, top, and bottom. The enclosures for these transfer points shall be operated and maintained as total enclosures on a continuing basis in accordance with the facility operations and maintenance plan. The following points are totally enclosed:

2000 EIQ

Point	Description	Control Device
CG-9g	coal transfer (rail) - elevator to belt conveyor MBE-1/MBC-2	enclosed
CG-12	coal transfer point - elevator to coal conveyor MBE-1/MBC-3	enclosed
CG-12a	coal transfer point - conveyor to conveyor MBC-3/MBC-4	enclosed
CG-12b	coal transfer point - conveyor to conveyor MBC-4/MBC-5	enclosed
CG-13	coal transfer point - conveyor to silo MBC-4/Coal Silo	enclosed
CG-14	gypsum transfer point - elevator to conveyor MBE-1/MBC-3	enclosed
CG-14a	gypsum transfer point - conveyor to conveyor MBC-3/MBC-4	enclosed
CG-14b	gypsum transfer point - conveyor to silo MBC-4/MBC-5	enclosed
CG-14c	gypsum transfer point - conveyor MBC-5 to Bin 1	enclosed
CG-14d	gypsum transfer point - conveyor MBC-6 to Bin 2	enclosed
CG-15	gypsum bin 1 and 2	enclosed
CG-16	gypsum transfer - bins onto belt conveyor	enclosed
RM-19	transfer, secondary crusher to conveyor to mill, clay	enclosed
RM-21	clay storage pile - underground	enclosed
KP-2	waste dust agglomerator	enclosed

Since the units listed above are exempt from opacity regulations under 63 CFR Subpart LLL are also exempt from opacity requirements under 10 CSR 10-6.220, Restriction of Emission of Visible Air Contaminants. Thus, the only applicable rule is the installation wide requirement of 10 CSR 10-6.170 which the installation is required to comply with.

Other Regulations Not Cited in the Operating Permit or the Above Statement of Basis

Any regulation which is not specifically listed in either the Operating Permit or in the above Statement of Basis does not appear, based on this review, to be an applicable requirement for this installation for one or more of the following reasons:

1. The specific pollutant regulated by that rule is not emitted by the installation;
2. The installation is not in the source category regulated by that rule;
3. The installation is not in the county or specific area that is regulated under the authority of that rule;
4. The installation does not contain the type of emission unit which is regulated by that rule;
5. The rule is only for administrative purposes.

Should a later determination conclude that the installation is subject to one or more of the regulations cited in this Statement of Basis or other regulations which were not cited, the installation shall determine and demonstrate, to the APCP's satisfaction, the installation's compliance with that regulation(s). If the installation is not in compliance with a regulation which was not previously cited, the installation shall submit to the APCP a schedule for achieving compliance for that regulation(s).

Prepared by:

Slawomir Szydlo
Environmental Engineer

Draft

Mr. Doug Sisco, Plant Manager
Continental Cement Company, Inc.
10107 Highway 79
Hannibal, MO 63401

CERTIFIED MAIL:
RETURN RECEIPT REQUESTED

RE: Continental Cement Company, Inc., Installation ID Number: 173-0001
Permit Number: **OP**

Dear Mr. Sisco:

Enclosed with this letter is your Part 70 operating permit. Please review this document carefully. Operation of your installation in accordance with the rules and regulations cited in this document is necessary for continued compliance. It is very important that you read and understand the requirements contained in your permit.

If you have any questions or need additional information regarding this permit, please contact the Air Pollution Control Program (APCP) at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Pamela S. Muren, P.E.
Operating Permits Unit Chief

PSM/ssd

Enclosures

c: Ms. Harriett Jones, US EPA Region VII
Mr. Paul Jeffery, Northeast Regional Office
PAMS File: 390-0000-1025

Mr. Jerry Epperson
Continental Cement Company, Inc.
10107 Highway 79
Hannibal, MO 63401

CERTIFIED MAIL: 7002 0860 0007 6970 8521
RETURN RECEIPT REQUESTED

RE: Draft Part 70 Operating Permit – Project Number: 390-0000-1025

Dear Mr. Epperson:

The Air Pollution Control Program (APCP) has completed the preliminary review of your Part 70 (Title V) permit application. A public notice will be placed in the *Hannibal Courier-Post* on Friday, December 26, 2003.

The APCP will accept comments regarding the draft permit that are postmarked on or before the closing date. It is very important that you read and understand this legal document. You will be held responsible for complying with this document.

Please address comments or recommendations for changes to my attention at:

Operating Permits Unit
Air Pollution Control Program
P.O. Box 176
Jefferson City, MO 65102

A copy of this draft has also been sent to the U.S. EPA's Region VII office in Kansas City for their review. The Region VII office is afforded, by law, oversight authority on any Title V permit which Missouri (or any of the other states in the region) may propose to issue. A public hearing may be held if interest is expressed by the public.

Should you have any questions, or wish clarification on any items in this draft permit, please feel free to contact me at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Slawomir Szydlo
Environmental Engineer

SS/dg

Enclosures

c: PAMS File: 390-0000-1025

Mr. Peter Hamlin, Chief
Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road
Urbandale, IA 50322

RE: Affected States Review – Notification of Proposed Final Part 70 Operating Permit

Dear Mr. Hamlin:

In accordance with Missouri State Rule 10 CSR 10-6.065(6)(F)1. and the Clean Air Act this letter is to notify you of public notice of the preliminary draft and request for comments for:

Continental Cement Company, Incorporated in Hannibal, Missouri
Project Number: 390-0000-1025

Public notice will be published in the *Hannibal Courier-Post* in Hannibal, Missouri on Friday, December 26, 2003. You are invited to submit any relevant information, materials, and views in support of or in opposition to the draft operating permits in writing by no later than January 24, 2004 to my attention at Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Should you require further information or documentation on this matter, please contact the Operating Permits Unit at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Pamela S. Muren
Operating Permits Unit Chief

PSM/ssd

Enclosures

PAMS File: 390-0000-1025

Mr. David Kolaz, Bureau Chief
Illinois Environmental Protection Agency
Division of Air Pollution Control
P.O. Box 19276
Springfield, IL 63794-9276

RE: Affected States Review – Notification of Proposed Final Part 70 Operating Permit

Dear Mr. Kolaz:

In accordance with Missouri State Rule 10 CSR 10-6.065(6)(F)1. and the Clean Air Act this letter is to notify you of public notice of the preliminary draft and request for comments for:

Continental Cement Company, Incorporated in Hannibal, Missouri
Project Number: 390-0000-1025

Public notice will be published in the *Hannibal Courier-Post* in Hannibal, Missouri on Friday, December 26, 2003. You are invited to submit any relevant information, materials, and views in support of or in opposition to the draft operating permits in writing by no later than January 24, 2004 to my attention at Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Should you require further information or documentation on this matter, please contact the Operating Permits Unit at (573) 751-4817, or you may write to the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102. Thank you for your time and attention.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Pamela S. Muren
Operating Permits Unit Chief

PSM/ssd

Enclosures

PAMS File: 390-0000-1025